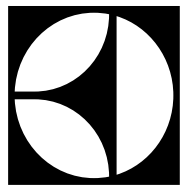


For Husqvarna Parts Call 606-678-9623 or 606-561-4983



Electrolux

H O M E P R O D U C T S



SNOWTHROWER SERVICE MANUAL

www.mymowerparts.com

To the technician using this manual:

This technical manual includes sections of the consumers owners manual to allow the you to see the instructions given to the consumer or retail store. These pages will have the word CONSUMER in smaller print in the heading.

For the purpose of this manual we selected a model that has as many features as possible. You may work on models that do not have power steering, a headlight, or the auger may be 24, 27, or 30 inches wide. This manual is written to cover the most complex repairs.

Section 7 will deal with SYSTEMS AND REPAIR PROCEDURES. Included in this section will be the exploded parts listing from a snowthrower. This will allow you so compare the pictures with the instructions to the parts illustrations. The part numbers will not be shown as they will change on different models. You should refer to the parts list for the specific model you are working on when ordering parts.

When working on a snowthrower or any lawn and garden equipment develop and follow safe working practices:

- * Wear appropriate close fitting clothing.
- * Use safety equipment, i.e. gloves, safety glasses or hearing protection.
- * Always remove the spark plug wire when working on a machine.
- * Use the proper tools and use torque wrench on fasteners indicated in this manual.
- * Use power tools only to loosen threaded fasteners.
- * Be extremely careful with fuel. Keep the lid and vent closed on gasoline containers and away from sunlight, heat, flames, or sparks.
- * Follow safety recommendations from other manuals and the consumer safety rules on pages 4 and 5. We should set a good example for the customer and follow the practices we expect them to follow.

The following section labeled 'Customer Responsibilities' is in the owners manual:

CUSTOMER RESPONSIBILITIES

- Read and observe the safety rules.
- Follow a regular schedule in maintaining, caring for and using your snow thrower.
- Follow the instructions under "Maintenance" and "Storage" sections of owner's manual.

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SECTION 1: SAFETY RULES



Safe Operation Practices for Snow Throwers

IMPORTANT: This machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.



Look for this symbol to point out important safety precautions. It means **CAUTION!!! BECOME ALERT!!! YOUR SAFETY IS INVOLVED.**



WARNING: Always disconnect spark plug wire and place it where it cannot contact plug in order to prevent accidental starting when setting up, transporting, adjusting or making repairs.



WARNING: This snow thrower is for use on sidewalks, driveways and other ground level surfaces. Caution should be exercised while using on sloping surfaces. Do not use snow thrower on surfaces above ground level such as roofs of residences, garages, porches or other such structures or buildings.



WARNING: Snow throwers have exposed rotating parts, which can cause severe injury from contact, or from material thrown from the discharge chute. Keep the area of operation clear of all persons, small children and pets at all times including startup.



CAUTION: Muffler and other engine parts become extremely hot during operation and remain hot after engine has stopped. To avoid severe burns on contact, stay away from these areas.



WARNING: Engine exhaust, some of its constituents, and certain vehicle components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

TRAINING

- Read the operating and service instruction manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment. Know how to stop the unit and disengage the controls quickly.
- Never allow children to operate the equipment. Never allow adults to operate the equipment without proper instruction.
- Keep the area of operation clear of all persons, particularly small children and pets.
- Exercise caution to avoid slipping or falling especially when operating in reverse.

PREPARATION

- Remove foreign objects. Thoroughly inspect the area where the equipment is to be used and remove all doormats, sleds, boards, wires, rocks & landscaping.
- Disengage all clutches before starting engine (motor).
- Do not operate the equipment without wearing adequate winter outer garments. Avoid loose, dangling clothing, such as scarves, which can get caught in rotating parts. Wear footwear that will improve footing on slippery surfaces.
- Handle fuel with care; it is highly flammable.
 - Never smoke while refueling.
 - Use an approved fuel container.
 - Never remove fuel tank cap or add fuel to a running engine (motor) or hot engine (motor).
 - Fill fuel tank outdoors with extreme care. Never fill fuel tank indoors.
 - Replace fuel cap securely and wipe up spilled fuel.
 - Never store fuel or snow thrower with fuel in the tank inside of a building where fumes may reach an open flame or spark.
 - Check fuel supply before each use, allowing space for expansion as the heat of the engine (motor) and/or sun cause fuel to expand.

STATIC ELECTRICITY HAZARD -

- Never fill containers inside a vehicle or on a truck or trailer bed with a plastic liner. Always place containers on the ground, away from your vehicle before filling.
- When practical, remove gas-powered equipment from the truck or trailer and refuel it on the ground. If this is not possible, then refuel such equipment on a trailer with a portable container, rather than from a gasoline dispenser nozzle.
- Keep the nozzle in contact with the rim of the fuel tank opening at all times, until refueling is complete. Do not use a nozzle lock-open device.
- If fuel is spilled on clothing, change clothing immediately.
- For all units with electric starting motors use electric starting extension cords certified CSA/UL. Use only with a receptacle that has been installed in accordance with local inspection authorities.
- If snow thrower must be operated over gravel surface, use extra caution and be sure skid plates are adjusted to lowest (highest scraper clearance) position.
- Never attempt to make any adjustments while the engine (motor) is running (except when specifically recommended by manufacturer).
- Let engine (motor) and snow thrower adjust to outdoor temperatures before starting to clear snow.
- Always wear safety glasses or eye shields during operation or while performing an adjustment or repair to protect eyes from foreign objects that may be thrown from the snow thrower.

SAFETY RULES



Safe Operation Practices for Snow Throwers



IMPORTANT: This machine is capable of amputating hands and feet and throwing objects. Failure to observe the following safety instructions could result in serious injury or death.

OPERATION

- Do not operate this machine if you are under the influence of alcohol or taking drugs or other medication which can cause drowsiness or affect your ability to operate this machine.
- Do not use this machine if you are mentally or physically unable to operate this machine safely.
- Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening and front auger area at all times.
- Exercise extreme caution when operating on or crossing gravel drives, walks or roads. Stay alert for hidden hazards or traffic.
- After striking a foreign object, stop the engine (motor), remove wire from the spark plug, thoroughly inspect snow thrower for any damage, and repair the damage before restarting and operating the snow thrower.
- If the unit should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.
- Stop the engine (motor) whenever you leave the operating position, before unclogging the auger/impeller housing or discharge chute and when making any repairs, adjustments, or inspections.
- When cleaning, repairing, or inspecting, make certain all controls are disengaged and the auger/impeller and all moving parts have stopped. Disconnect the spark plug wire and keep the wire away from the spark plug to prevent accidental starting.
- Take all possible precautions when leaving the snow thrower unattended. Disengage the auger/impeller, stop engine (motor), and remove key.
- Do not run the engine (motor) indoors, except when starting the engine (motor) and for transporting the snow thrower in or out of the building. Open the outside doors.
- Never operate the snow thrower near glass enclosures, automobiles, window wells, drop-offs, and the like without proper adjustment of the snow discharge angle. Keep children and pets away.
- Do not overload the machine capacity by attempting to clear snow at too fast a rate.
- Never operate the machine at high transport speeds on slippery surfaces. Look behind and use care when backing up.
- Never direct discharge at bystanders or allow anyone in front of the unit.
- Disengage power to the auger/impeller when snow thrower is transported or not in use.
- Use only attachments and accessories approved by the manufacturer of the snow thrower (such as wheel weights, counterweights, cabs, tire chains, electric start kits, etc.).
- Never operate the snow thrower without good visibility or light. Always be sure of your footing and keep a firm hold on the handles. Walk; never run.
- Do not overreach. Keep proper footing and balance at all times.
- This snow thrower is for use on sidewalks, driveways and other ground level surfaces.
- Do not use the snow thrower on surfaces above ground level such as roofs of residences, garages, porches or other such structures or buildings.



WARNING: Exhaust fumes are dangerous (containing CARBON MON-OXIDE, an ODORLESS and DEADLY GAS).

- Do not clear snow across the face of slopes. Exercise extreme caution when changing direction on slopes. Do not attempt to clear steep slopes.
- Never operate the snow thrower without proper guards, plates or other safety protective devices in place.
- Check shear bolts and other bolts at frequent intervals for proper tightness to be sure the equipment is in safe working condition.
- Never store the snow thrower with fuel in the tank inside a building where ignition sources are present such as hot water and space heaters, clothes dryers, and the like. Allow the engine (motor) to cool before storing in any enclosure.
- Always refer to operator's guide instructions for important details if the snow thrower is to be stored for an extended period.
- Maintain or replace safety and instruction labels, as necessary.
- Run the snow thrower, with auger engaged, a few minutes after throwing snow to clear the machine and prevent freeze-up of the auger/impeller.

MAINTENANCE AND STORAGE

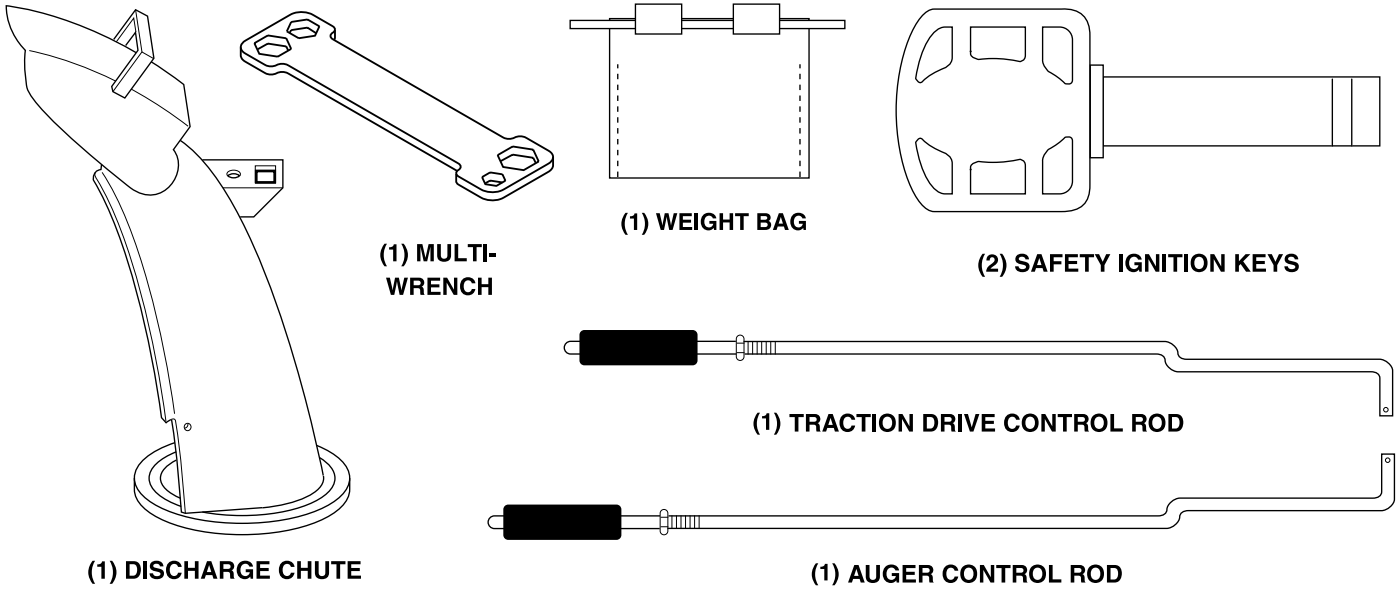
SECTION 2: SPECIFICATIONS

ENGINE:	TECUMSEH OHV
GASOLINE CAPACITY: On 5 & 5.5 HP TYPE	4.0 Quart 3.5 Quart Unleaded Regular only
OIL TYPE: (API-SF-SJ)	SAE 30 (above 40 F) SAE 5W-30 or 10W30 (0 to 40 F) SAE 0W-30 (below 0 F)
OIL CAPACITY: . (TECUMSEH 5 or 5.5 HP)	21 Ounces
OIL CAPACITY: . (TECUMSEH 9 & 11 HP)	26 Ounces
SPARK PLUG:	Champion RN4C for OHV models(Gap.030") Champion RJ-19LM for 'L' Head (Gap: .030")
ENGINE SPEED: (TECUMSEH 5 or 5.5 HP) .	3400 plus or minus 150 RPM
ENGINE SPEED: (TECUMSEH 9 & 11 HP)	3500 plus or minus 150 RPM
ALTERNATOR:	On models with headlight option
ELECTRIC STARTER:	Available on selected models of snowthrower
DRIVE SYSTEM:	Traction Disc System with Gears BRAKE:None
TRACTION BELT:	Part Number 179092 Cog-V-Belt (Use OEM part only)
WHEELS:	13" or 16"
TIRE PRESSURE:	14 to 17 PSI in operation
SNOWTHROWER AUGER SYSTEM:	24", 27", or 30" Widths
AUGER BELT:	Part Number 183533 (Use OEM part only)
GEARBOX:	Worm with Gear / No Maintenance Required
SCRAPER BAR:	Reversible / Replaceable
SKID PLATES:	Adjustable / Replaceable
FASTENERS THAT MUST BE TORQUED:	
BOLTS HOLDING ENGINE TO CHASSIS:	25 to 30 Ft.Lb.
LOWER HANDLE BOLTS:	25 to 30 Ft.Lb.
SCREWS INTO AUGER BEARINGS:	5 to 8 Ft.Lb.
BOLTS HOLDING PULLEY FOR RUBBER RING:	14 to 18 Ft.Lb.
PIVOT BOLT FOR IDLER BRACKET (ON ENGINE): . . .	12 to 16 Ft.Lb.
BELT GUIDE BOLT (ON ENGINE):	12 to 16 Ft.Lb.
BOLT HOLDING AUGER TO POWERHEAD:	25 to 30 Ft.Lb.
SELF TAPPING SCREWS FOR FLANGE BEARING ASSY:	14 to 18 Ft.Lb.

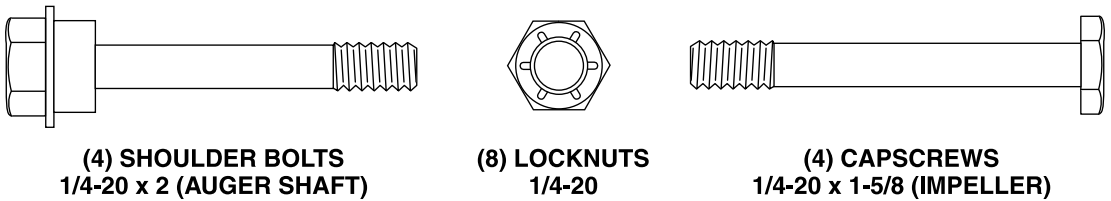
METALLIC ANTI - SEIZE REQUIRED ON POWER STEERING SPLINE AND FRICTION PLATE SHAFT

SECTION 3: CONSUMER ASSEMBLY

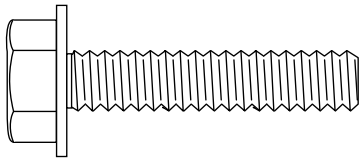
PARTS PACKED SEPARATELY IN CARTON



EXTRA SHEAR BOLTS AND NUTS

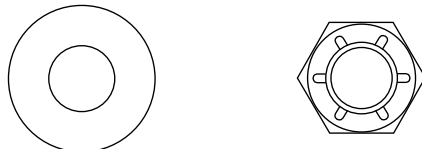


WEIGHT BAG MOUNTING



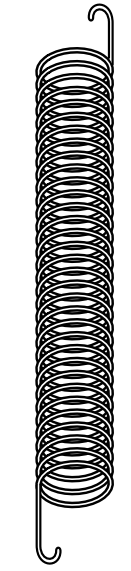
(2) CAPSCREWS 5/16-18 x 1-1/2

ROTATER HEAD MOUNTING



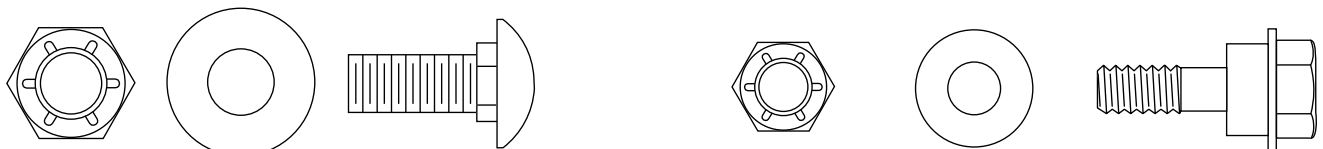
(1) WASHER 3/8

(1) LOCKNUT 3/8



(1) SPRING

CHUTE DEFLECTOR REMOTE CONTROL



(1) LOCKNUT
5/16-18

(1) WASHER

(1) CARRIAGE
BOLT 5/16-18 x 5/8

(1) LOCKNUT
1/4-20

(1) NYLON
WASHER

(1) SHOULDER
BOLT 1/4-20

CONSUMER ASSEMBLY / PRE-OPERATION

Read these instructions and this manual in its entirety before you attempt to assemble or operate your new snow thrower. Your new snow thrower has been assembled at the factory with the exception of those parts left unassembled for shipping purposes. All parts such as nuts, washers, bolts, etc., necessary to complete the assembly have been placed in the parts bag. To ensure safe and proper operation of your snow thrower, all parts and hardware you assemble must be tightened securely. Use the correct tools as necessary to ensure proper tightness.

REMOVE SNOW THROWER FROM CARTON

1. Remove all accessible loose parts and parts boxes from carton.
2. Cut down all four corners of carton and lay panels flat.
3. Remove all packing materials except plastic tie holding speed control rod to lower handle.
4. Remove snow thrower from carton and check carton thoroughly for additional loose parts.

HOW TO SET UP YOUR SNOW THROWER

TOOL BOX (See Fig. 12)

A toolbox is provided on your snow thrower. The toolbox is located on top of the belt cover. Store the extra shear bolts, nuts and multi-wrench provided in parts bag in the toolbox.

NOTE: The multi-wrench may be used for assembly of the chute rotator head to snow thrower and making adjustments to the skid plates.

UNFOLD UPPER HANDLE

1. Raise upper handle to the operating position and tighten handle knobs securely.

INSTALL SPEED CONTROL ROD (See Figs. 1 and 2)

1. Remove plastic tie securing rod to lower handle.
2. Remove retainer spring from top end of rod.
3. Insert rod into speed control bracket and secure with retainer spring.

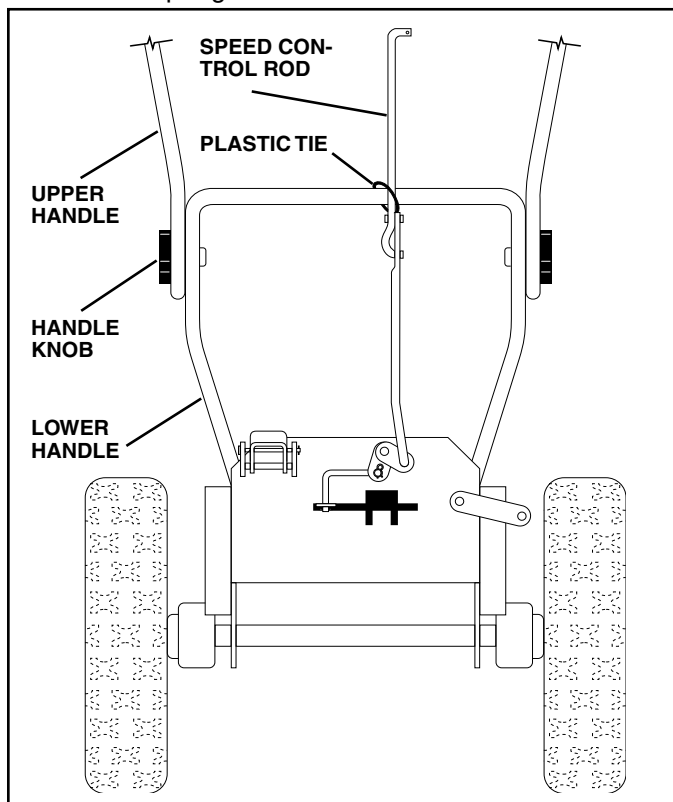


FIG. 1

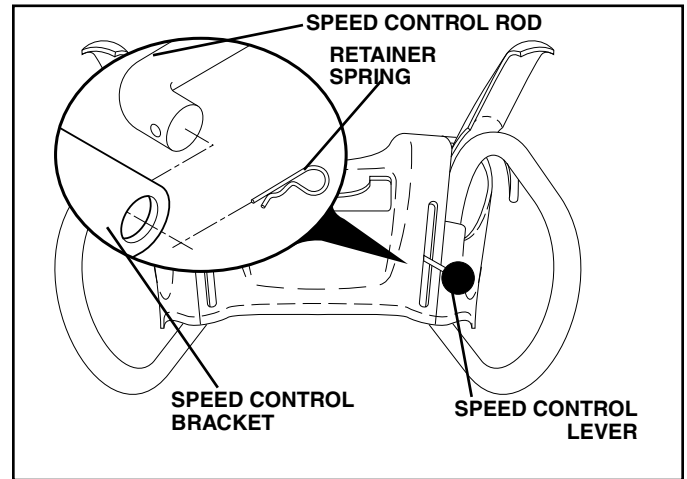


FIG. 2

INSTALL TRACTION DRIVE CONTROL ROD (See Figs. 3 and 4)

The traction drive control rod has the long loop on the end of the spring as shown.

1. Slide rubber sleeve up rod and hook end of spring into pivot bracket with loop opening down as shown.
2. Remove retainer spring from top end of rod.
3. With top end of rod positioned under left side of control panel, push rod down and insert top end of rod into hole in drive control bracket. Secure with retainer spring.

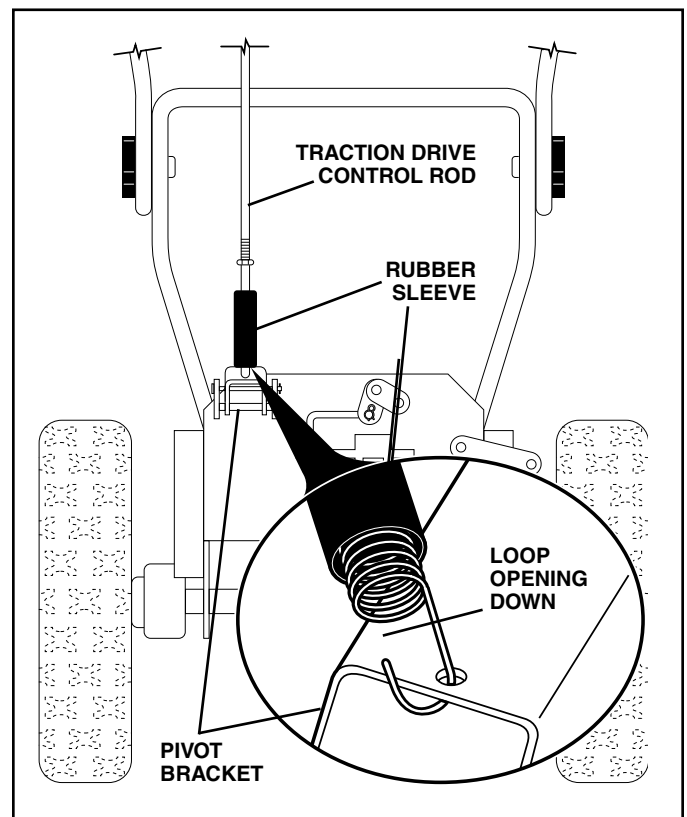


FIG. 3

CONSUMER ASSEMBLY / PRE-OPERATION

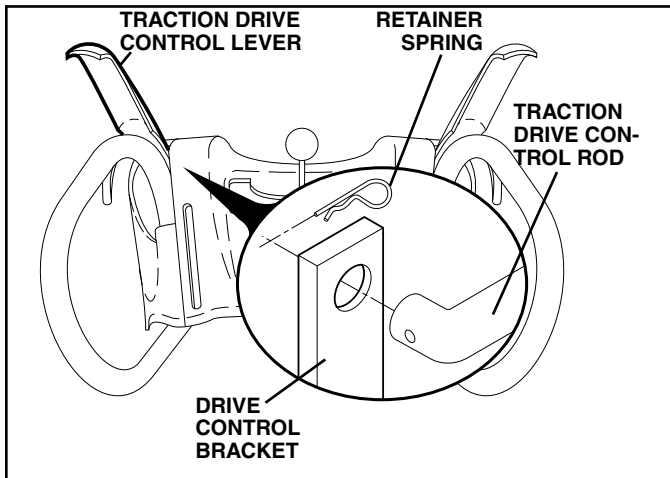


FIG. 4

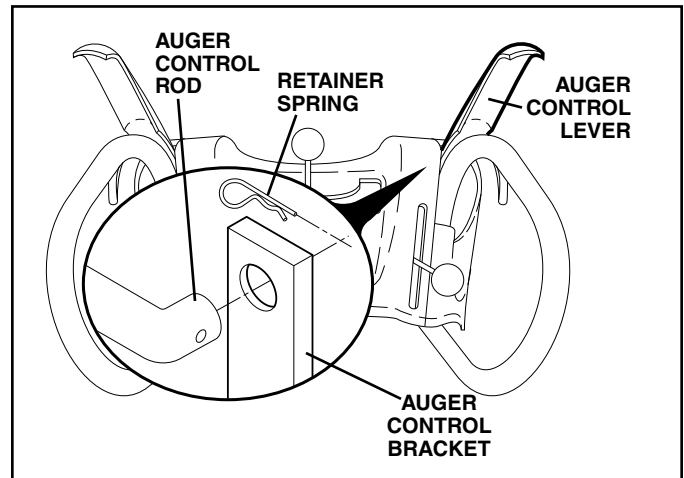


FIG. 6

INSTALL AUGER CONTROL ROD (See Figs. 5 and 6)

The auger control rod has the short loop on the end of the spring as shown.

1. Slide rubber sleeve up rod and hook end of spring into control arm with loop opening up as shown.
2. Remove retainer spring from top end of rod.
3. With top end of rod positioned under right side of control panel, push down on rod and insert end of rod into hole in auger control bracket. Secure with retainer spring.

INSTALL DISCHARGE CHUTE /CHUTE ROTATER HEAD

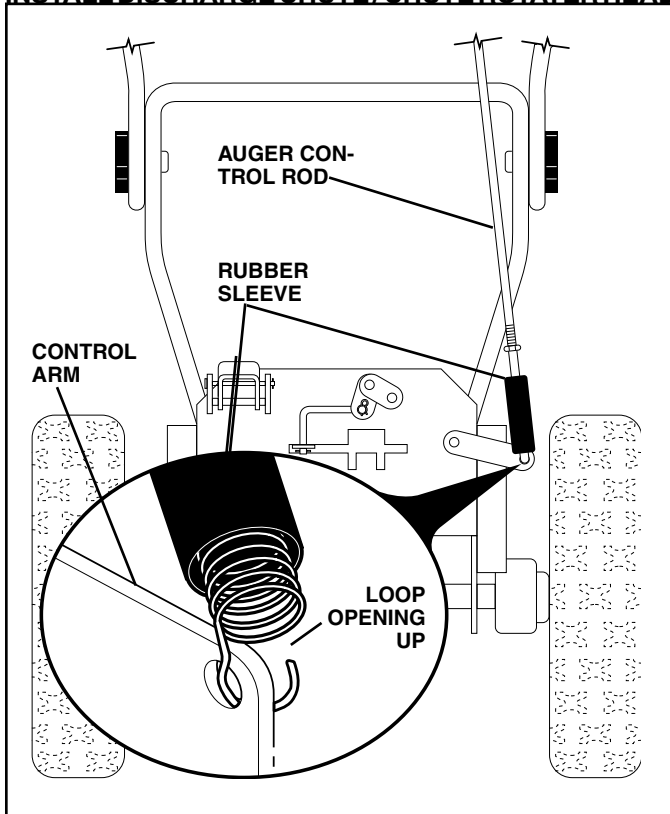


FIG. 5

(See Fig. 7)

NOTE: The multi-wrench provided in your parts bag may be used to install the chute rotater head.

1. Place discharge chute assembly on top of chute thrower with discharge opening toward front of snow thrower.
2. Position chute rotater head over chute bracket. If necessary, rotate chute assembly to align square and pin on underside of chute rotater head with holes in chute bracket.
3. With chute rotater head and chute bracket aligned, position chute rotater head on pin and threaded stud of mounting bracket.
4. Install 3/8 washer and locknut on threaded stud and tighten securely.

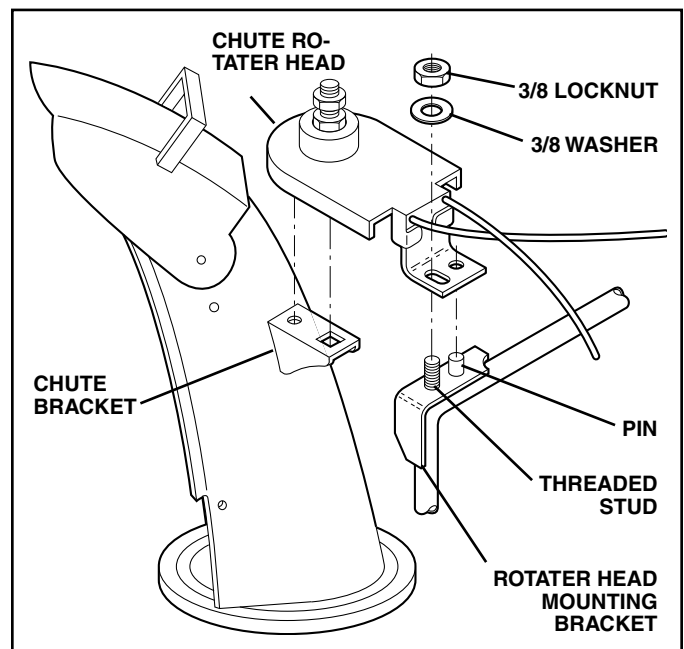


FIG. 7

CONSUMER ASSEMBLY / PRE-OPERATION

INSTALL CHUTE DEFLECTOR REMOTE CONTROL

(See Figs. 9 and 10)

1. Install remote cable bracket to discharge chute with 5/16-18 carriage bolt, flat washer and 5/16-18 locknut as shown. Tighten securely.
2. Install remote cable eyelet to chute deflector with 1/4-20 shoulder bolt, nylon washer and 1/4-20 locknut as shown. Tighten securely.
3. Install spring hooks between hex nuts on chute rotator head and into hole in chute deflector as shown.

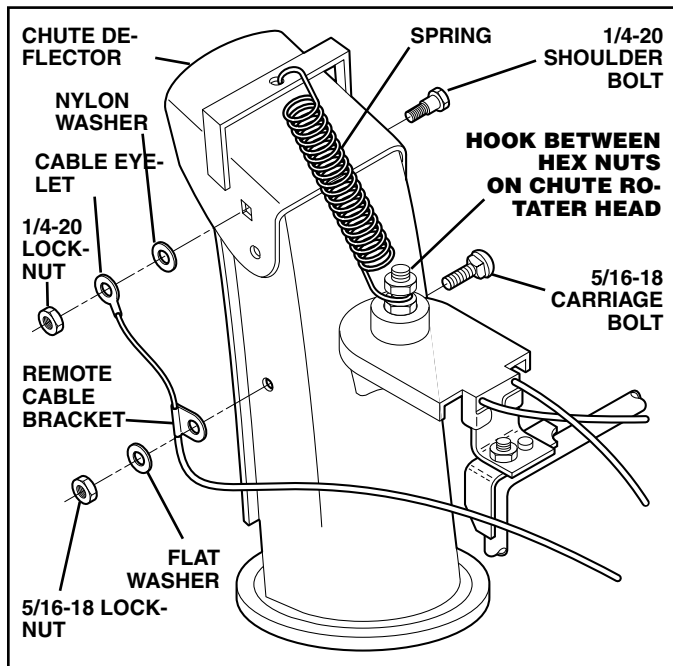


FIG. 9

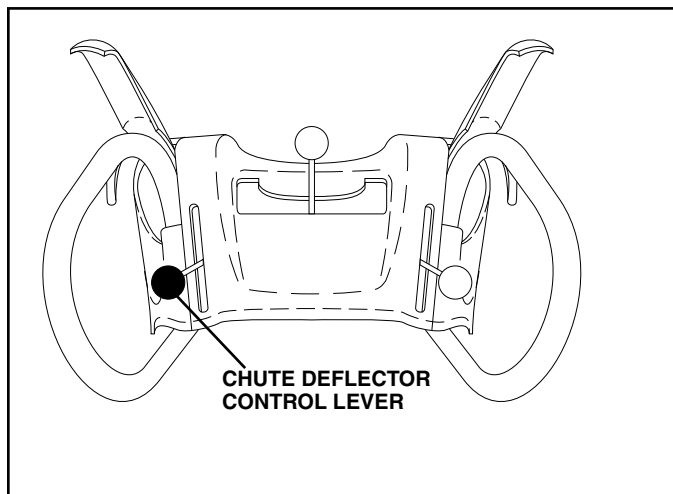


FIG. 10

INSTALL WEIGHT BAG (See Fig. 11)

Though seldom required, the weight bag will reduce the tendency of the auger housing to ride up on hard, icy drifts. Should conditions require it, install as follows:

1. Shut off engine and wait for all moving parts to stop.
2. Fill weight bag with desired amount of sand.
3. Place weight bag on top of auger housing with mounting clamp at front edge of auger housing as shown.

IMPORTANT: Mount the weight bag in a location which does not cover the warning decals on top of the auger housing.

CHECK TIRE PRESSURE

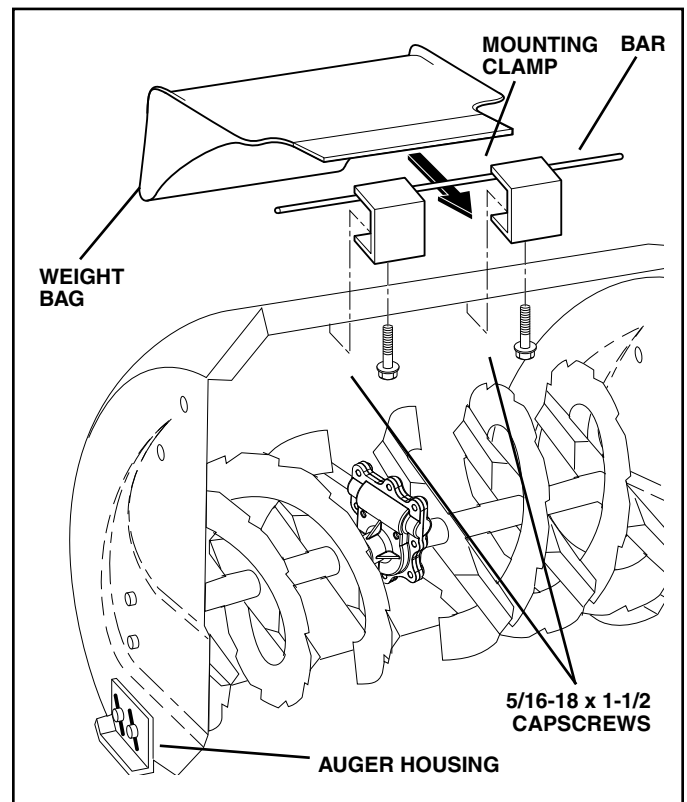


FIG. 11

The tires on your snow thrower were overinflated at the factory for shipping purposes. Correct and equal tire pressure is important for best snow throwing performance.

- Reduce tire pressure to 14-17 PSI.

CONSUMER OPERATION

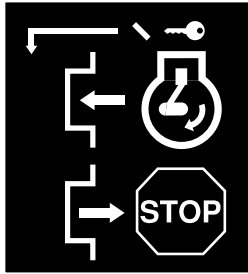
KNOW YOUR SNOW THROWER

READ THIS OWNER'S MANUAL AND ALL SAFETY RULES BEFORE OPERATING YOUR SNOW THROWER. Compare the illustrations with your snow thrower to familiarize yourself with the location of various controls and adjustments. Save this manual for future reference.

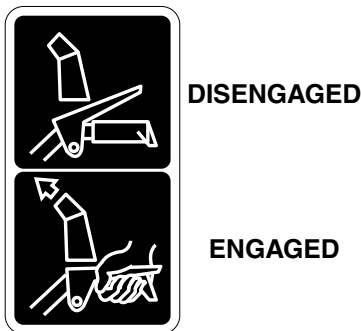
These symbols may appear on your snow thrower or in literature supplied with the product. Learn and understand their meaning.



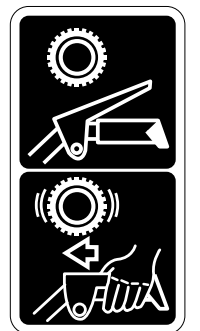

READ AND FOLLOW ALL SAFETY INFORMATION AND INSTRUCTIONS BEFORE USE OF THIS PRODUCT. KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE.



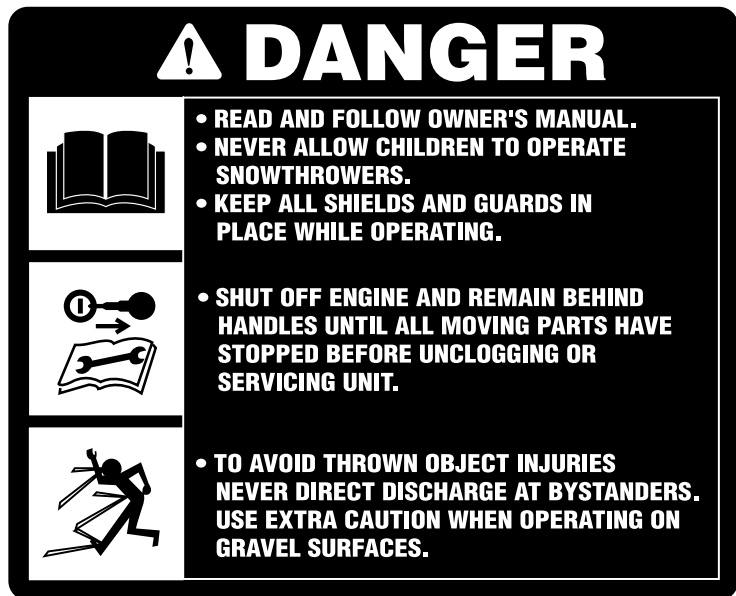
IGNITION KEY.
 INSERT TO START AND RUN,
 PULL OUT TO STOP.



SNOW DISCHARGE



TRACTION DRIVE CONTROL



CONSUMER OPERATION

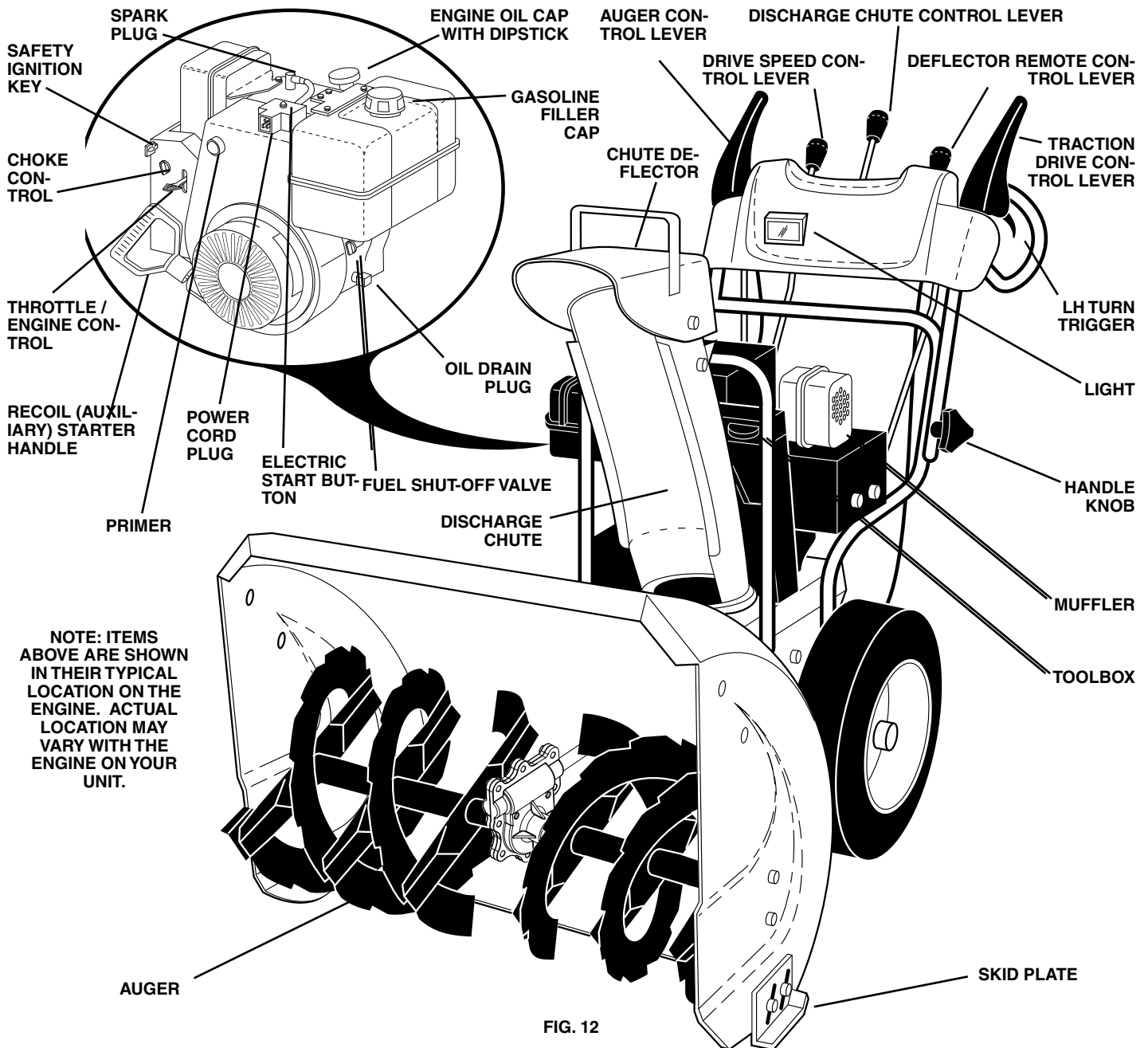


FIG. 12

MEETS A.N.S.I. SAFETY REQUIREMENTS

Our snow throwers conform to the standards of the American National Standards Institute.

Toolbox - used to store spare shear bolts, locknuts and wrench.

Safety ignition key - must be inserted for the engine to start and run. Remove when snow thrower is not in use.

Electric start button - used for starting the engine.

Recoil (auxiliary) starter handle - used for starting the engine.

Primer - pumps additional fuel from the carburetor to the cylinder for use when starting a cold engine.

Choke Control - used for starting a cold engine.

Throttle/engine control - used to select either FAST or SLOW engine speed and to STOP the engine.

LH and RH turn triggers - used to steer the snow thrower.

Drive speed control lever - used to select forward or reverse motion and speed of snow thrower.

Traction drive control lever - used to engage power-propelled forward or reverse motion of snow thrower.

Auger control lever - used to engage auger motion (throw snow).

Discharge chute control lever - used to change the direction the snow is thrown.

Deflector remote control lever - used to change the distance the snow is thrown.

Skid plate - used to adjust height of scraper bar from the ground.

CONSUMER OPERATION



The operation of any snow thrower can result in foreign objects thrown into the eyes, which can result in severe eye damage. Always wear safety glasses or eye shields while operating your snow thrower or performing any adjustments or repairs. We recommend standard safety glasses or a wide vision safety mask worn over spectacles.

HOW TO USE YOUR SNOW THROWER

Know how to operate all controls before adding fuel or attempting to start the engine.

STOPPING

TRACTION DRIVE

- Release traction drive control lever to stop the forward or reverse movement of the snow thrower.

AUGER

- Release the auger control lever to stop throwing snow.

ENGINE

- Move throttle control to "STOP" position.
- Remove (do not turn) safety ignition key to prevent unauthorized use.

NOTE: Never use choke to stop engine.

TO USE FUEL SHUT-OFF VALVE (See Fig. 13)

The fuel shut-off valve is located beneath the fuel tank on the engine. Always operate the snow thrower with the fuel shut-off valve in the OPEN position.

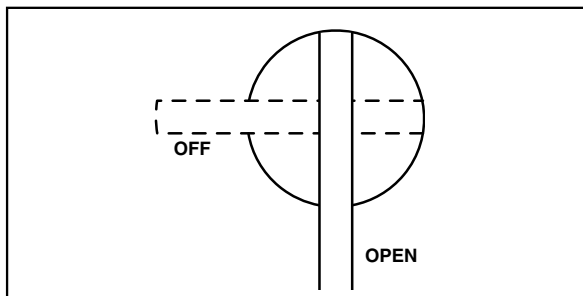


FIG. 13

TO USE THROTTLE CONTROL (See Fig. 14)

The throttle control is located on the engine. Always operate the snow thrower with the engine at full throttle. Full throttle offers the best snow thrower performance.

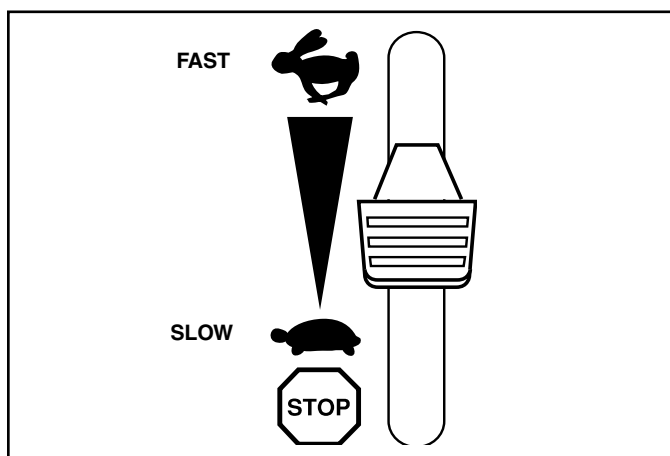


FIG. 14

TO USE CHOKE CONTROL (See Fig. 15)

The choke control is located on the engine. Use the choke control whenever you are starting a cold engine. Do not use to start a warm engine.

- To engage choke, turn knob clockwise. Slowly turn knob counterclockwise to disengage.

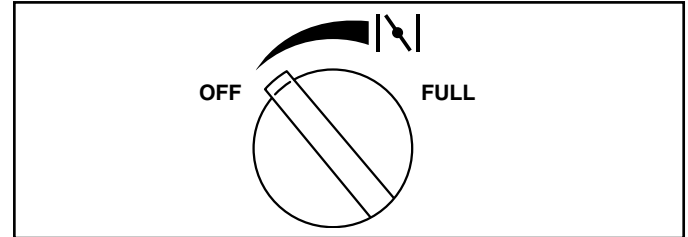


FIG. 15

TO CONTROL SNOW DISCHARGE (See Fig. 16)



WARNING: Snow throwers have exposed rotating parts, which can cause severe injury from contact, or from material thrown from the discharge chute. Keep the area of operation clear of all persons, small children and pets at all times including startup.



WARNING: If the discharge chute or auger become clogged, shut-off engine, disconnect spark plug and wait for all moving parts to stop. Use a stick, **NOT YOUR HANDS**, to unclog the chute and/or auger.

The **DIRECTION** in which snow is to be thrown is controlled by the discharge chute control lever.

- To change the discharge chute position, press downward on discharge chute control lever and move lever left or right until chute is in desired position. Be sure lever springs back and locks into desired position.

The **DISTANCE** that snow is thrown is controlled by the position of the chute deflector. Set the deflector low to throw snow a short distance; set the deflector higher to throw snow farther.

- Press downward on chute deflector control lever and move lever forward to lower the deflector and decrease the distance. Move lever back to raise the deflector and increase the distance. Be sure lever springs back and locks into desired position.

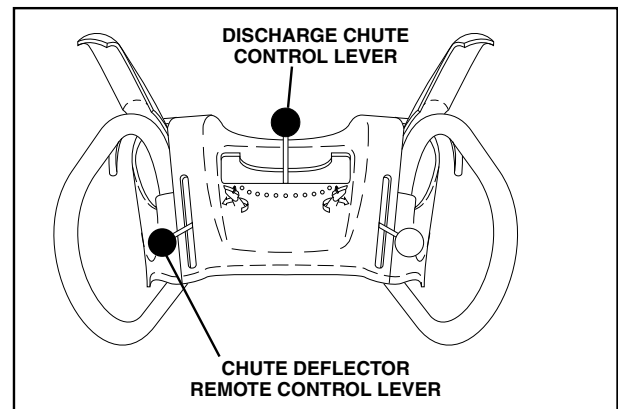


FIG. 16

CONSUMER OPERATION

TO THROW SNOW (See Fig. 17)

The auger rotation is controlled by the auger control lever located on the right side handle.

- Squeeze auger control lever to handle to engage the auger and throw snow.
- Release the auger control lever to stop throwing

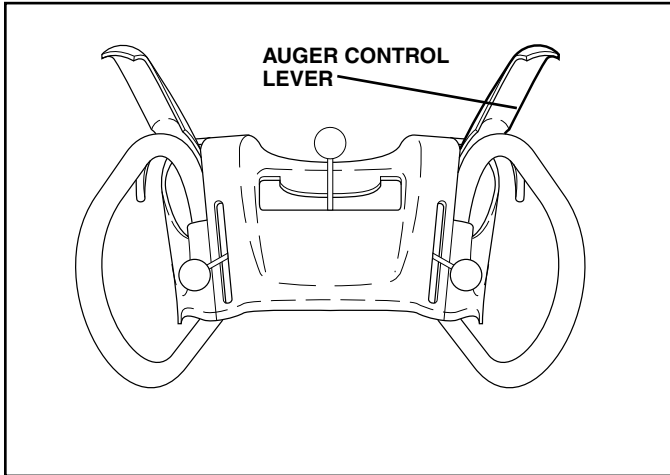


FIG. 17

snow.

TO MOVE FORWARD AND BACKWARD (See Fig. 18)

SELF-PROPELLING, forward and reverse movement of the snow thrower, is controlled by the traction drive control lever located on the left side handle.

- Squeeze traction drive control lever to handle to engage the drive system.
- Release traction drive control lever to stop the forward or reverse movement of the snow thrower.

SPEED and DIRECTION are controlled by the drive speed control lever.

- Press downward on the speed control lever and move lever to desired position BEFORE engaging the traction drive control lever. Be sure lever springs back and locks into desired position.

CAUTION: Do not move speed control lever when traction drive control lever is engaged. Damage to the snow thrower can result.

- Slower speeds are for heavier snow and faster speeds are for light snow and transporting the snow thrower. It is recommended that you use a slower speed until you are familiar with the operation of the snow thrower.

NOTE: When both traction drive and auger control levers are engaged, the traction drive control lever will lock the auger control lever in the engaged position. This will allow you to release your right hand from the handle and adjust the discharge chute direction without interrupting the snow

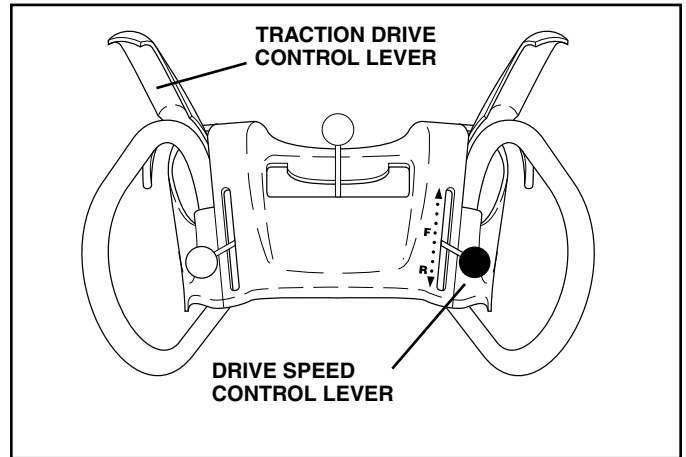


FIG. 18

throwing process.

POWER STEERING OPERATION (See Fig. 19)

Steering triggers are used to assist in steering your snow thrower. The triggers are located on the underside of each handle. When a trigger is squeezed, it disengages the drive wheel on that side of snow thrower and allows it to turn in that direction.

- To turn left – squeeze left side trigger.
- To turn right – squeeze right side trigger.

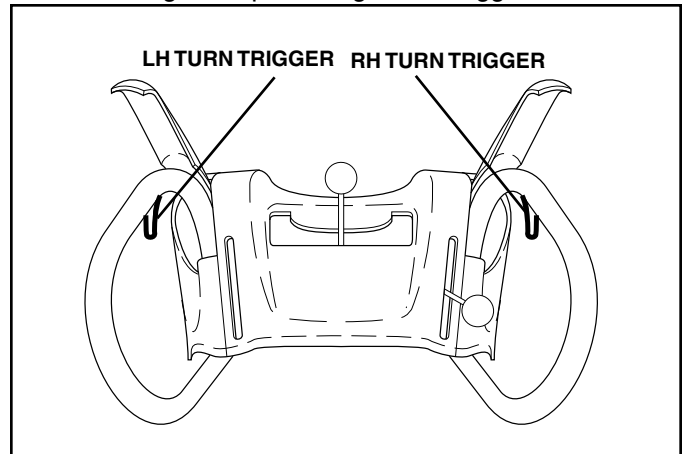


FIG. 19

TO ADJUST SKID PLATES (See Fig. 20)

NOTE: The wrench provided in your parts bag may be used to adjust the skid plates.

Skid plates are located on each side of the auger housing and adjust the clearance between the scraper bar and the ground surface. Adjust skid plates evenly to proper height for current surface conditions. For removal of snow in normal conditions, such as a paved driveway or sidewalk, place skid plates in the highest position (lowest scraper clearance) to give a 1/8" clearance between the scraper bar and the ground. Use a middle position if the surface to be cleared is uneven.

NOTE: It is not recommended to operate the snow thrower over gravel or rocky surfaces. Objects such as gravel, rocks or other debris, can easily be picked up and thrown by the impeller, which can cause serious personal injury, property damage or damage to the snow thrower.

- If snow thrower must be operated over gravel surface, use extra caution and be sure skid plates are adjusted to lowest (highest scraper clearance) position.

CONSUMER OPERATION

1. Shut off engine and wait for all moving parts to stop.
2. Adjust skid plates by loosening the rear 1/2" hex nut only, then moving skid plate to desired position. Be sure both plates are adjusted evenly. Tighten securely.

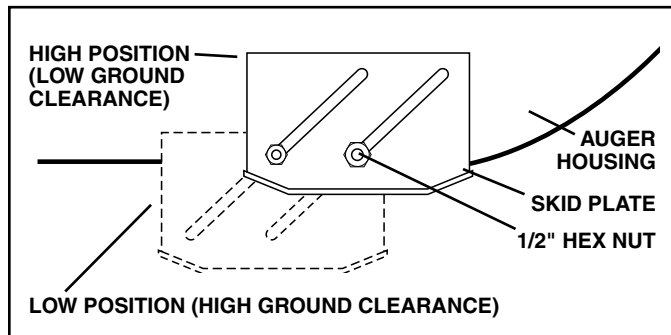


FIG. 20

SCRAPER BAR

The scraper bar is not adjustable, but is reversible. After considerable use it may become worn. When it has worn almost to the edge of the housing, it can be reversed, providing additional service before requiring replacement. Replace a damaged or worn scraper bar.

BEFORE STARTING THE ENGINE

CHECK ENGINE OIL LEVEL (See Fig. 21)

The engine on your snow thrower has been shipped, from the factory, already filled with oil.

1. Check engine oil with snow thrower on level ground.
 2. Remove oil fill cap/dipstick and wipe clean, reinsert the dipstick and screw tight, wait for a few seconds, remove and read oil level. If necessary, add oil until "FULL" mark on dipstick is reached. Do not overfill.
- To change engine oil, see "TO CHANGE ENGINE OIL" in the Maintenance section of this manual.

ADD GASOLINE (See Fig. 21)

- Fill fuel tank to bottom of tank filler neck. Do not overfill. Use fresh, clean, regular unleaded gasoline with a minimum of 87 octane. Do not mix oil with gasoline. Purchase fuel in quantities that can be used within 30 days to assure fuel freshness.



WARNING: Wipe off any spilled oil or fuel. Do not store, spill or use gasoline near an open flame.

CAUTION: Alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage. To avoid engine problems, the fuel system should be emptied before storage of 30 days or longer. Drain the gas tank, start the engine and let it run until the fuel lines and carburetor are empty. Use fresh fuel next season. See Storage Instructions for additional information. Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.

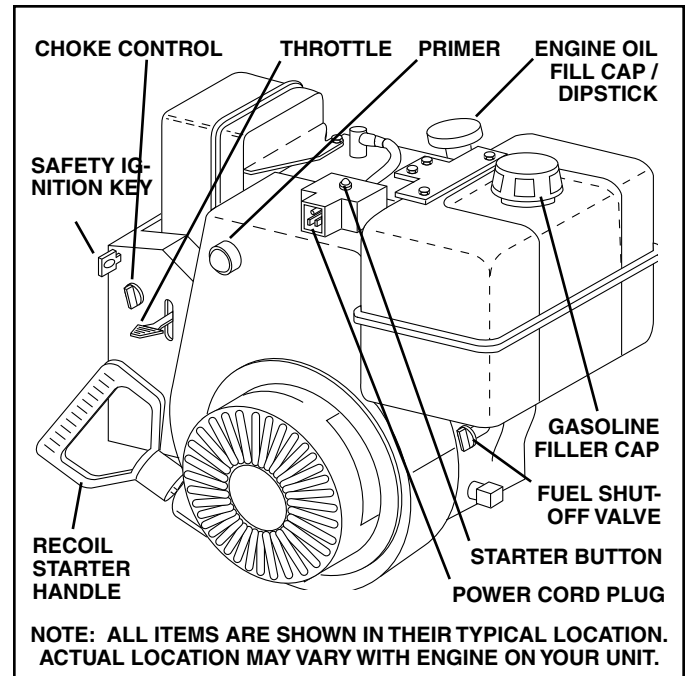


FIG. 21

TO START ENGINE

- Be sure fuel shut-off valve is in the OPEN position.

Your snow thrower engine is equipped with both a 120 Volt A.C. electric starter and a recoil starter. The electric starter is equipped with a three-wire power cord and plug and is designed to operate on 120 Volt A.C. household current.

- Be sure your house is a 120 Volt A.C. three-wire grounded system. If you are uncertain, consult a licensed electrician.



WARNING: Do not use the electric starter if your house is not a 120 Volt A.C. three-wire grounded system. Serious personal injury or damage to your snow thrower could result.

COLD START - ELECTRIC STARTER

1. Insert safety ignition key into the ignition slot until it clicks. DO NOT turn the key. Keep the extra safety ignition key in a safe place.
2. Place throttle control in FAST position.
3. Rotate choke control to FULL position.
4. Connect the power cord to the engine.
5. Plug the other end of the power cord into a three-hole grounded 120 Volt A.C. receptacle.

NOTE: Do not use primer when starting engine with the electric starter.

6. Push starter button until engine starts.

IMPORTANT: Do not crank engine more than five continuous seconds between each time you try to start. Wait 5 to 10 seconds between each attempt.

CONSUMER OPERATION

- When the engine starts, release the starter button and slowly move the choke control to the OFF position.
- Disconnect the power cord from the receptacle first, then from the engine.

Allow the engine to warm up for a few minutes. Engine will not develop full power until it has reached normal operating temperature.

WARM START - ELECTRIC STARTER

Follow the steps above, keeping the choke control in the OFF position.

COLD START - RECOIL STARTER

- Insert safety ignition key into the ignition slot until it clicks. DO NOT turn the key. Keep the extra safety ignition key in a safe place.
- Place throttle control in FAST position.
- Rotate choke control to FULL position.
- Push the primer four (4) times if the temperature is below 15°F, or two (2) times if temperature is between 15° and 50°F. If temperature is above 50°F, priming is not necessary.

NOTE: Over priming may cause flooding, preventing the engine from starting. If you do flood the engine, wait a few minutes before attempting to start and DO NOT push the primer.

- Pull recoil starter handle quickly. Do not allow starter rope to snap back.
- When the engine starts, release the recoil starter handle and slowly move the choke control to the OFF position.

Allow the engine to warm up for a few minutes. Engine will not develop full power until it has reached normal operating temperature.

WARM START - RECOIL STARTER

Follow the steps above, keeping the choke in the OFF position. DO NOT push the primer.

BEFORE STOPPING

Run the engine for a few minutes to help dry off any moisture on the engine.

To avoid possible freeze-up of the starter, proceed as follows:

ELECTRIC STARTER

- Connect the power cord to the engine.
- Plug the other end of the power cord into a three-hole grounded 120 Volt A.C. receptacle.
- While the engine is running, push starter button and spin the starter for several seconds.

NOTE: The unusual sound made while starter is spinning will not harm the engine or starter.

- Disconnect the power cord from the receptacle first, then from the engine.

RECOIL STARTER

- While the engine is running, pull the recoil starter handle with rapid, full arm strokes three or four times.

NOTE: The unusual sound made while pulling the recoil starter handle will not harm the engine or starter.

IF RECOIL STARTER HAS FROZEN

If the recoil starter has frozen and will not turn the engine, proceed as follows:

- Grasp the recoil starter handle and slowly pull as much rope out of the starter as possible.
- Release the recoil starter handle and let it snap back against the starter.

If the engine still fails to start, repeat the above steps or use the electric starter.

SNOW THROWING TIPS

- Always operate the snow thrower with the engine at full throttle. Full throttle offers the best snow thrower performance.
- Go slower in deep, freezing or heavy wet snow. Use the drive speed control, NOT the throttle, to adjust ground speed.
- It is easier and more efficient to remove snow immediately after it falls.
- The best time to remove snow is the early morning. At this time the snow is usually dry and has not been exposed to the direct sun and warming temperatures.
- Slightly overlap each successive path to ensure all snow will be removed.
- Throw snow downwind whenever possible.
- Adjust the skid plates to proper height for current snow conditions. See "TO ADJUST SKID PLATES" in this section of this manual.
- For extremely heavy snow, reduce the width of snow removal by overlapping previous path and moving slowly.
- Keep engine clean and clear of snow during use. This will help air flow and extend engine life.
- After snow-throwing job is completed, allow engine to run for a few minutes to melt snow and ice off the engine.
- Clean the entire snow thrower thoroughly after each use and wipe dry so it is ready for next use.



WARNING: Do not operate snow thrower if weather conditions impair visibility. Throwing snow during a heavy, windy snowstorm can blind you and be hazardous to the safe operation of the snow thrower.

CONSUMER MAINTENANCE

MAINTENANCE SCHEDULE		BEFORE EACH USE AFTER EACH USE EVERY 25 HOURS OR EVERY SEASON EVERY 50 HOURS EVERY 100 HOURS BEFORE STORAGE						SERVICE DATES				
T H R O W E R	Check for Loose Fasteners	✓						✓				
	Clean / Inspect Snow Thrower		✓					✓				
	Check / Replace V-Belts				✓							
	Lubrication Chart			✓				✓				
E N G I N E	Check Engine Oil Level	✓										
	Change Engine Oil				✓							
	Inspect Muffler				✓							
	Check / Replace Spark Plug					✓						
	Drain Fuel Tank							✓				

GENERAL RECOMMENDATIONS

The warranty on this snow thrower does not cover items that have been subjected to operator abuse or negligence. To receive full value from the warranty, operator must maintain snow thrower as instructed in this manual. Some adjustments will need to be made periodically to properly maintain your snow thrower.

All adjustments in the Service and Adjustments section of this manual should be checked at least once each season.

- Once a year, you should replace the spark plug and check belts for wear. A new spark plug will help your engine run better and last longer.
- Follow the maintenance schedule in this manual.

NOTE: Use only Original Equipment Manufacturer (OEM) parts to service this unit. Failure to do so can cause the unit to malfunction and pose a risk of injury to the operator.

BEFORE EACH USE

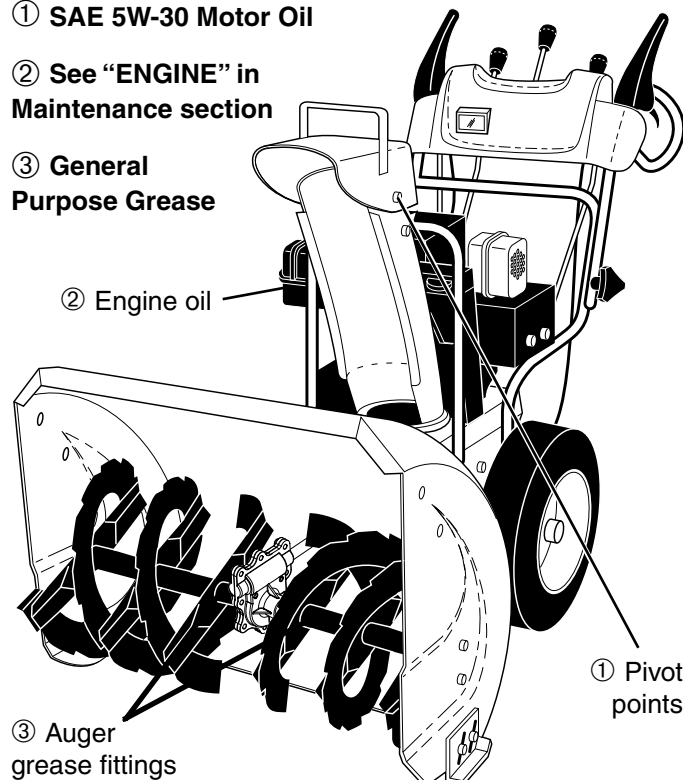
1. Check engine oil level.
2. Check for loose fasteners.
3. Check controls to be sure they are functioning properly.

LUBRICATION

Keep your snow thrower well lubricated (See "LUBRICATION CHART").

LUBRICATION CHART

- ① SAE 5W-30 Motor Oil
- ② See "ENGINE" in Maintenance section
- ③ General Purpose Grease



SNOW THROWER

Always observe the safety rules when performing any maintenance.

TIRES

- Maintain proper air pressure in both tires (See "PRODUCT SPECIFICATIONS" section in this manual).

- Keep tires free of gasoline and oil, which can harm rubber.

NOTE: To seal tire punctures and prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.

CONSUMER MAINTENANCE

V-BELTS

Check V-belts for deterioration and wear after every 50 hours of operation and replace if necessary. The belts are not adjustable. Replace belts if they begin to slip from wear. (See "TO REMOVE BELT COVER" in the Service and Adjustments section of this manual).

The V-belts on your snow thrower are of special construction and should be replaced by original equipment manufacturer (OEM) belts available from your nearest dealer. Using other than OEM belts can cause personal injury or damage to the snow thrower.

AUGER GEAR CASE

- The gear case was filled with lubricant to the proper level at the factory. The only time the lubricant needs attention is if service has been performed on the gear case.
- If lubricant is required, use only Ronex ED #1 grease.

TRACTION DRIVE SYSTEM

DO NOT lubricate the drive components inside the snow thrower. The sprockets, hex shafts, drive disc and friction wheel require no lubrication. The bearings and bushings are lifetime lubricated and require no maintenance.

CAUTION: Any lubricating of the above components can cause contamination of the friction wheel and damage to the drive system of your snow thrower.

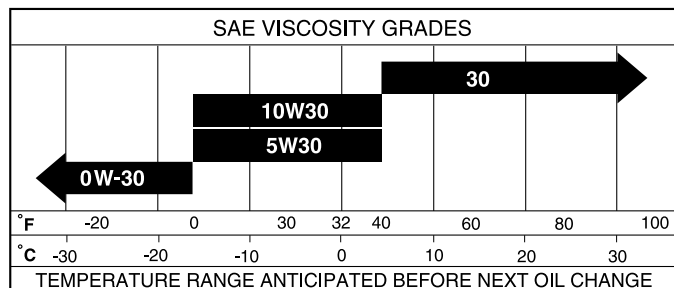
ENGINE

LUBRICATION

Use only high quality detergent oil rated with API service classification SF-SJ. Select the oil's SAE viscosity grade according to your expected operating temperature.

NOTE: Although multi-viscosity oils (5W30, 10W30 etc.) improve starting in cold weather, these multi-viscosity oils will result in increased oil consumption when used above 32°F. Check your engine oil level more frequently to avoid possible engine damage from running low on oil.

Change the oil after every 50 hours of operation or at least once a year if the snow thrower is not used for 50 hours in one year.



Check the crankcase oil level before starting the engine and after each five (5) hours of continuous use. Tighten oil fill cap / dipstick securely each time you check the oil level.

TO CHANGE ENGINE OIL

Determine temperature range anticipated before next oil change. All oil must meet API service classification SF-SJ.

- Be sure snow thrower is on level surface.
- Oil will drain more freely when warm.
- Catch oil in a suitable container.

NOTE: The left side wheel may be removed from snow thrower for easier access to the oil drain plug and placement of a suitable container. The unit tilted, resting on the frame with the left wheel removed, will help drain any oil trapped inside the engine. (See "TO REMOVE WHEELS" in the Service and Adjustments section of this manual).

1. Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with spark plug.
2. Clean area around drain plug.
3. Remove drain plug and drain oil in a suitable container.
4. Install drain plug and tighten securely.
5. Wipe off any spilled oil from snow thrower and engine.
6. Install left wheel (if removed for draining oil). Be sure to install klick pin into proper hole in wheel axle (See "TO REMOVE WHEELS" in the Service and Adjustments section of this manual).
7. Remove oil fill cap/dipstick. Be careful not to allow dirt to enter the engine.
8. Refill engine with oil through oil dipstick tube. Pour slowly. Do not overfill. For approximate capacity see "PRODUCT SPECIFICATIONS" section of this manual.
9. Use gauge on oil fill cap/dipstick for checking level. Be sure dipstick cap is tightened securely for accurate reading. Keep oil at "FULL" line on dipstick.
10. Wipe off any spilled oil.

MUFFLER

Inspect and replace corroded muffler as it could create a fire hazard and/or damage.

SPARK PLUG

Replace spark plug at the beginning of each season or after every 100 hours of operation, whichever occurs first. Spark plug type and gap setting are shown in the "PRODUCT SPECIFICATIONS" section of this manual.

CLEANING

IMPORTANT: For best performance, keep snow thrower housing free of any dirt or trash. Clean the outside of your snow thrower after each use.



WARNING: Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with spark plug.

- Keep finished surfaces/wheels free of gasoline, oil, etc.
- We do not recommend using a garden hose to clean your snow thrower unless the electrical system, muffler and carburetor are covered to keep water out. Water in engine can result in shortened engine life.

CONSUMER SERVICE AND ADJUSTMENTS



WARNING: To avoid serious injury, before performing any service or adjustments:

1. Be sure throttle is in STOP position.
2. Remove safety ignition key.
3. Make sure the augers and all moving parts have completely stopped.
4. Disconnect spark plug wire from spark plug and place wire where it cannot come in contact with plug.

1. Disengage all controls and move throttle control to STOP position. Wait for all moving parts to stop.
2. Disconnect spark plug wire from spark plug and place it where it cannot come in contact with spark plug.
3. Align holes in impeller hub with holes in impeller shaft and install two (2) new 1/4-20 x 1-5/8" capscrew/shear bolts. Install 1/4-20 locknuts and tighten securely.

CAUTION: Do not substitute. Use only original equipment capscrew/shear bolts as supplied with your snow thrower.

4. Connect spark plug wire to spark plug.

SNOW THROWER

TO ADJUST SNOW THROWER HEIGHT

See "TO ADJUST SKID PLATES" and "SCRAPER BAR" in the Operation section of this manual.

CHUTE DEFLECTOR

The chute deflector, attached to the top of the discharge chute, is provided to direct discharging snow away from the operator. If the deflector becomes damaged, it should be replaced.



WARNING: To avoid serious injury, never operate your snow thrower with the deflector removed or damaged.

- To change direction and/or distance snow is discharged, see "TO CONTROL SNOW DISCHARGE" in the Operation section of this manual.

SHEAR BOLTS (See Fig. 22)

AUGER SHEAR BOLTS

Both right and left-hand augers are secured to the auger shaft with a shoulder/shear bolt and hex nut. Should a foreign object or ice become lodged in the augers, the shear bolts are designed to break, preventing damage to any other components. If one or both augers do not turn when auger control lever is engaged, check to see if one or both of the bolts have sheared. To replace the shear bolts:

1. Disengage all controls and move throttle control to STOP position. Wait for all moving parts to stop.
2. Disconnect spark plug wire from spark plug and place it where it cannot come in contact with spark plug.
3. Align hole in auger hub with hole in auger shaft and install a new 1/4-20 x 2" shoulder/shear bolt. Install 1/4-20 lock nut and tighten securely.

CAUTION: Do not substitute. Use only original equipment shear bolts as supplied with your snow thrower.

4. Connect spark plug wire to spark plug.

IMPELLER SHEAR BOLTS

The impeller is secured to the impeller shaft with two (2) capscrew/shear bolts and hex nuts. Should a foreign object or ice become lodged in the impeller, the capscrews are designed to break, preventing damage to any other components. If impeller does not turn when auger control lever is engaged, check to see if the capscrews have sheared. To replace the capscrew/shear bolts:

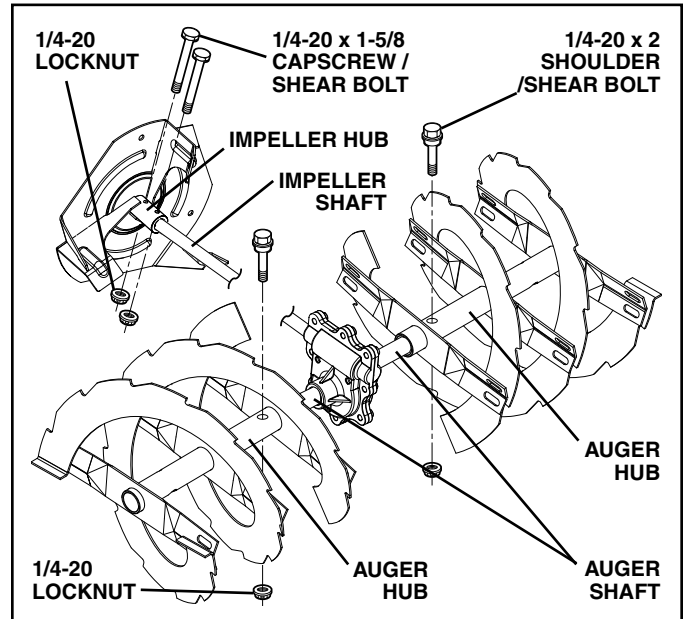


FIG. 22

TO REMOVE BELT COVER (See Fig. 23)

1. Remove the two (2) screws securing belt cover to frame.
 2. Remove belt cover.
- Replace belt cover by installing cover and screws and tighten securely.

TO REPLACE BELTS (See Fig. 24)

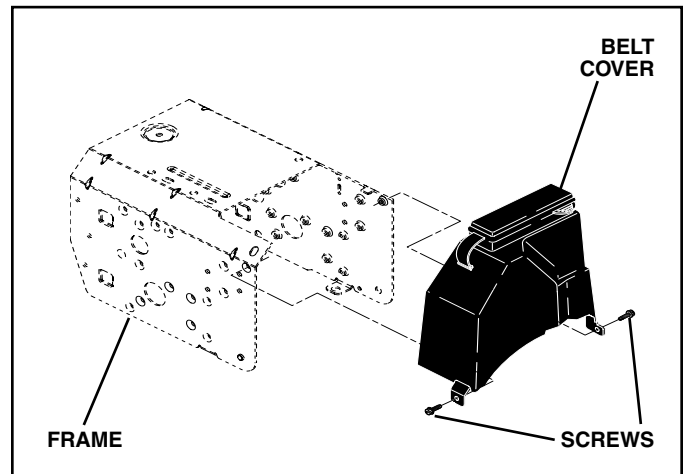


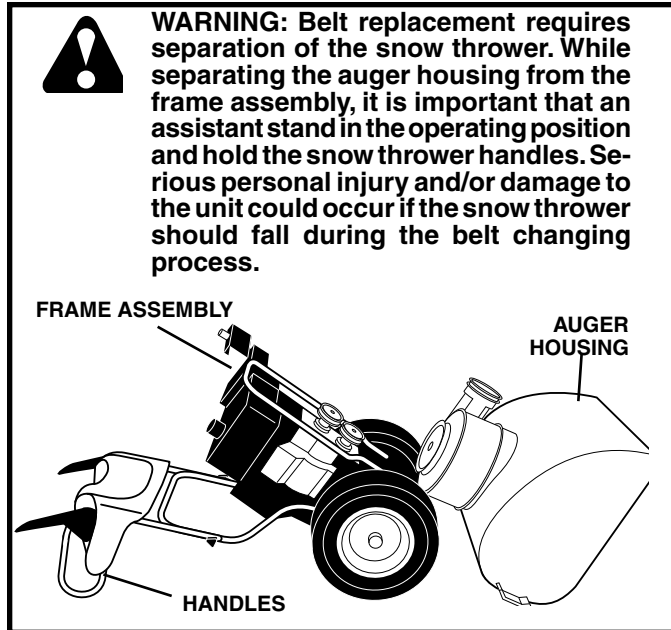
FIG. 23

CONSUMER SERVICE AND ADJUSTMENTS

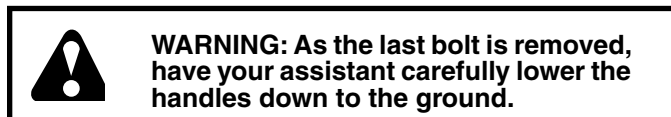
The auger and traction drive belts are not adjustable. If the belts are damaged or begin to slip from wear, they should be replaced. It is recommended that the belt(s) be replaced by a qualified service center.

NOTE: It is recommended that both the auger and traction drive belt be replaced at the same time.

The V-belts on your snow thrower are of special construction and should be replaced by original equipment manufacturer (OEM) belts available from your nearest dealer. Using other than OEM belts can cause personal injury or damage to the snow thrower.



1. REMOVE GASOLINE FROM FUEL TANK - Drain gasoline from fuel tank into a suitable container, outdoors, away from fire or flame. Wipe up any spilled gasoline.
2. REMOVE DISCHARGE CHUTE - Loosen locknut securing chute rotator head to mounting bracket only enough to allow chute rotator head to be raised and discharge chute to be removed from snow thrower.
3. REMOVE BELT COVER - See "TO REMOVE BELT COVER" in this section of this manual.
4. REMOVE ENGINE PULLEY - Remove bolt, lockwasher and flat washer securing pulley to engine crankshaft. Remove outside (auger) pulley only from crankshaft.
5. SEPARATE SNOW THROWER - With your assistant standing in the operating position holding the handles, remove the two (2) bolts and lock washers holding auger housing and frame together.



6. REMOVE AUGER BELT from around pulley.
7. RELIEVE TENSION ON TRACTION DRIVE BELT IDLER and remove traction drive belt from around pulleys.

HINT: Insert a 3/8" drive ratchet (in the "ON" position) into the square hole in idler arm and rotate ratchet clockwise to relieve tension.

8. With tension relieved on idler, install new traction drive belt around pulleys and inside belt keepers.
9. Place auger belt around and inside the groove of auger pulley only.
10. While your assistant slowly raises handles to rejoin the auger housing and frame assembly, pull up on the auger belt and squeeze sides together above pulley so belt is fully seated in groove of pulley.
11. Bring snow thrower completely together and check carefully for proper routing of belts. If auger belt has become dislodged from the pulley (by catching the idler arm bracket while bringing snow thrower together), separate the snow thrower and repeat step 10. Belt must be fully seated in pulley groove when bringing the snow thrower together.
12. Install the two (2) hex bolts and lock washers and tighten securely.
13. INSTALL ENGINE PULLEY - Place belt in pulley groove and slide pulley on crankshaft. Install flat washer, lockwasher and bolt and tighten securely (30-35 ft. lbs. torque). Make sure belt is inside belt keeper.
14. INSTALL BELT COVER and two (2) screws. Tighten securely.
15. INSTALL DISCHARGE CHUTE - See "INSTALL DISCHARGE CHUTE / CHUTE ROTATER HEAD" in the Assembly section of this manual.

TO REMOVE WHEELS (See Fig. 25)

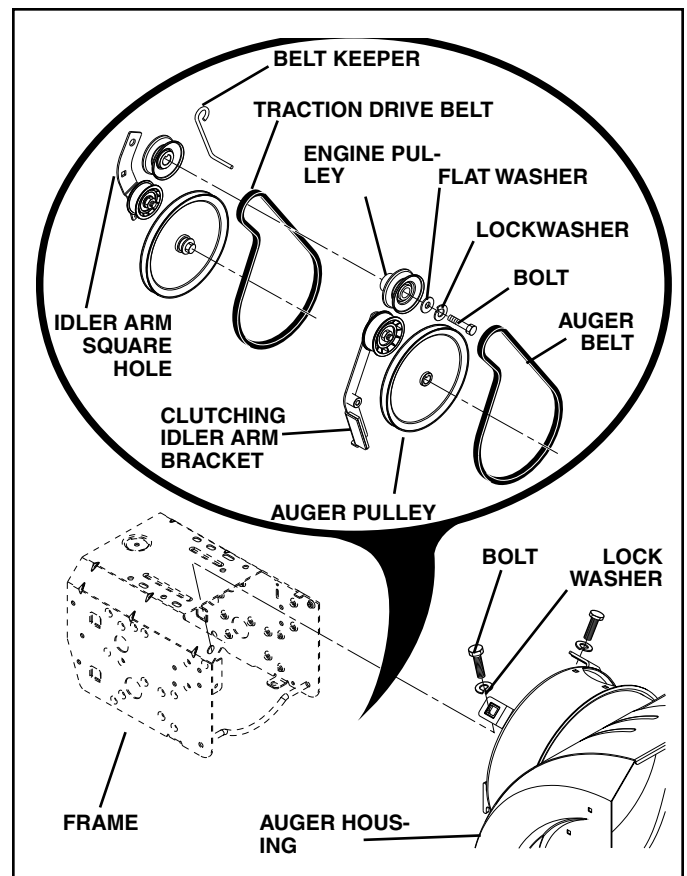
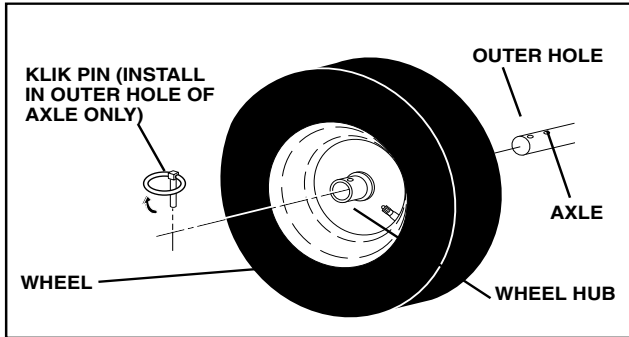


FIG. 24

- Remove the klik pin and remove wheel from axle.

IMPORTANT: When installing wheel, be sure to use the axle hole closest to the end of the shaft - *do not* use the hole in the wheel hub (if equipped). Inner hole in axle and hole in wheel are used for snow throwers that do not have power steering. See page 23

NOTE: To seal punctures or prevent flat tires due to slow leaks, tire sealant may be purchased from your local parts dealer. Tire sealant also prevents tire dry rot and corrosion.



ENGINE

CARBURETOR

Your carburetor is not adjustable. Engine performance should not be affected at altitudes up to 7,000 feet (2,134 meters). If your engine does not operate properly due to suspected carburetor problems, take your snow thrower to a service centre/department.

ENGINE SPEED

Never tamper with the engine governor, which is factory set for proper engine speed. Overspeeding the engine above the factory high speed setting can be dangerous and will void the warranty. If you think the engine-governed high speed needs adjusting, contact a service centre/department, which has proper equipment and experience to make any necessary adjustments.

CONSUMER STORAGE

Immediately prepare your snow thrower for storage at the end of the season or if the unit will not be used for 30 days or more.



WARNING: Never store the snow thrower with gasoline in the tank inside a building where fumes may reach an open flame, spark or pilot light as on a furnace, water heater, clothes dryer or gas appliance. Allow the engine to cool before storing in any enclosure.

SNOW THROWER

When snow thrower is to be stored for a period of time, clean it thoroughly, remove all dirt, grease, leaves, etc. Store in a clean, dry area.

1. Clean entire snow thrower (See "CLEANING" in the Maintenance section of this manual).
2. Inspect and replace belts, if necessary (See "TO REPLACE BELTS" in the Service and Adjustments section of this manual).
3. Lubricate as shown in the Maintenance section of this manual.
4. Be sure that all nuts, bolts, screws, and pins are securely fastened. Inspect moving parts for damage, breakage and wear. Replace if necessary.
5. Touch up all rusted or chipped paint surfaces; sand lightly before painting.

ENGINE

FUEL SYSTEM

IMPORTANT: It is important to prevent gum deposits from forming in essential fuel system parts such as carburetor, fuel hose, or tank during storage. Also, alcohol blended fuels (called gasohol or using ethanol or methanol) can attract moisture which leads to separation and formation of acids during storage. Acidic gas can damage the fuel system of an engine while in storage.

1. Drain the fuel tank.

2. Start the engine and let it run until the fuel lines and carburetor are empty.

- Never use engine or carburetor cleaner products in the fuel tank or permanent damage may occur.
- Use fresh fuel next season.

NOTE: Fuel stabilizer is an acceptable alternative in minimizing the formation of fuel gum deposits during storage. Add stabilizer to gasoline in fuel tank or storage container. Always follow the mix ratio found on stabilizer container. Run engine at least 10 minutes after adding stabilizer to allow the stabilizer to reach the carburetor. Do not drain the gas tank and carburetor if using fuel stabilizer.

ENGINE OIL

Drain oil (with engine warm) and replace with clean engine oil. (See "ENGINE" in the Maintenance section of this manual).

CYLINDER

1. Remove spark plug.
2. Pour one ounce (29 ml) of oil through spark plug hole into cylinder.
3. Pull recoil starter handle slowly a few times to distribute oil.
4. Replace with new spark plug.

OTHER

- Do not store gasoline from one season to another.
- Replace your gasoline can if your can starts to rust. Rust and/or dirt in your gasoline will cause problems.
- If possible, store your snow thrower indoors and cover it to protect it from dust and dirt.
- Cover your snow thrower with a suitable protective cover that does not retain moisture. Do not use plastic. Plastic cannot breathe, which allows condensation to form and will cause your snow thrower to rust.

IMPORTANT: Never cover snow thrower while engine/exhaust area is still warm.

SECTION 5: TROUBLESHOOTING

See appropriate section in manual unless directed to a qualified service center.

PROBLEM	CAUSE	CORRECTION
Does not start	<ol style="list-style-type: none"> 1. Fuel shut-off valve (if so equipped) in OFF position. 2. Safety ignition key is not inserted. 3. Out of fuel. 4. Throttle in STOP position. 5. Choke in OFF position. 6. Primer not depressed. 7. Engine is flooded. 8. Spark plug wire is disconnected. 9. Bad spark plug. 10. Stale fuel. 11. Water in fuel. 	<ol style="list-style-type: none"> 1. Turn fuel shut-off valve to OPEN position. 2. Insert safety ignition key. 3. Fill fuel tank. 4. Move throttle to FAST position. 5. Move to FULL position. 6. Prime as instructed in the Operation section of this manual. 7. Wait a few minutes before restarting, DO NOT prime. 8. Connect wire to spark plug. 9. Replace spark plug. 10. Drain fuel tank and carburetor, refill tank with fresh gasoline. 11. Drain fuel tank and carburetor, refill tank with fresh gasoline.
Loss of power	<ol style="list-style-type: none"> 1. Spark plug wire loose. 2. Throwing too much snow. 3. Fuel tank cap is clogged with ice or snow. 4. Dirty or clogged muffler. 	<ol style="list-style-type: none"> 1. Reconnect spark plug wire. 2. Reduce speed and width of swath. 3. Remove ice and snow on and around fuel tank cap. 4. Clean or replace muffler.
Engine idles or runs roughly	<ol style="list-style-type: none"> 1. Choke is in FULL position. 2. Blockage in fuel line. 3. Stale fuel. 4. Water in fuel. 5. Carburetor is in need of adjustment or overhaul. 	<ol style="list-style-type: none"> 1. Move choke to OFF position. 2. Clean fuel line. 3. Drain tank and refill with fresh, clean fuel. 4. Drain fuel tank and carburetor, refill tank with fresh gasoline. 5. Contact a qualified service center.
Excessive vibration	<ol style="list-style-type: none"> 1. Loose parts or damaged augers or impeller. 	<ol style="list-style-type: none"> 1. Tighten all fasteners. Replace damaged parts. If vibration remains, contact a qualified service center.
Recoil starter is hard to pull	<ol style="list-style-type: none"> 1. Frozen recoil starter. 	<ol style="list-style-type: none"> 1. See "If Recoil Starter Has Frozen" in the Operation section of this manual.
Loss of traction drive / slowing of drive speed	<ol style="list-style-type: none"> 1. Drive belt is worn. 2. Drive belt is off of pulley. 3. Friction drive wheel is worn. 	<ol style="list-style-type: none"> 1. Check / replace drive belt. 2. Check / reinstall drive belt. 3. Contact a qualified service center.
Loss of snow discharge or slowing of snow discharge	<ol style="list-style-type: none"> 1. Auger belt is off of pulley. 2. Auger belt is worn. 3. Clogged discharge chute. 4. Augers / impeller jammed. 	<ol style="list-style-type: none"> 1. Check / reinstall auger belt. 2. Check / replace auger belt. 3. Clean snow chute. 4. Remove debris or foreign object from augers / impeller.

SECTION 6: ADJUSTMENTS

6.01 Belt Guide

6.11 Klik Pin Position for wheels on Power Steering Drive Snowthrower

6.12 Klik Pin Positions for wheels on Standard Drive Snowthrower

6.21 Adjustment for Drive System Control Rod

6.22 Adjustment for worn Traction Disc Ring

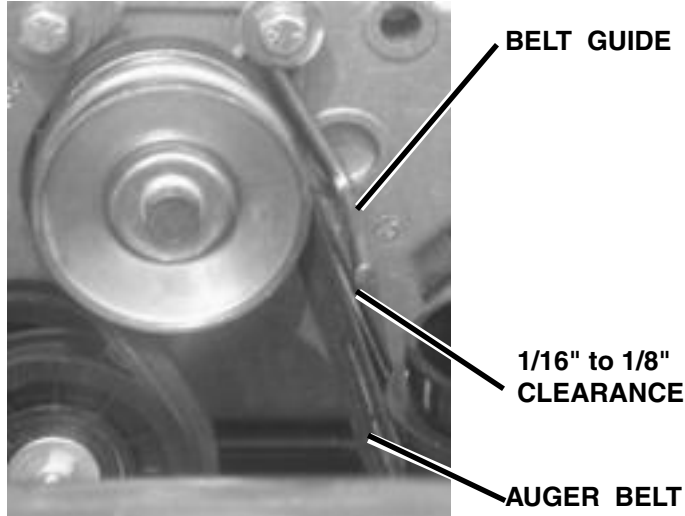
6.23 Adjustment for Auger Control Rod

6.24 Adjustment for Speed Control Rod

6.31 Procedure to add shim washer when Power Steering Slips

6.01 Belt Guide -

- * Remove spark plug wire from plug.
- * Engage auger lever and adjust clearance between belt and belt guide to 1/16" to 1/8".



6.11 Klik Pin Position for wheels on Power Steering Drive Snowthrower



- * This is the only position for the Klik Pin where the Power Steering will work. The hole in the wheel hub is **NEVER** used with Power Steering.

6.12 Klik Pin Positions for wheels on Standard Drive Snowthrower



- * To Push the snowthrower easily, the Klik Pin should be through the outer axle hole, with the wheel hub to the inside.

TRACTION BELT IDLER SPRING



- * For the wheel to drive, the Klik Pin should be positioned through both the wheel hub and inner axle hole.

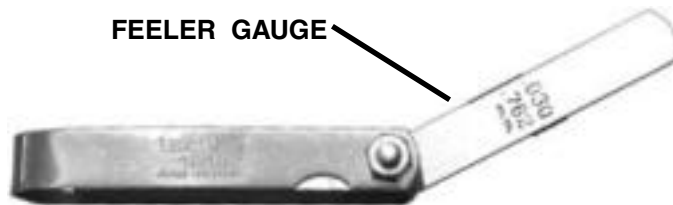
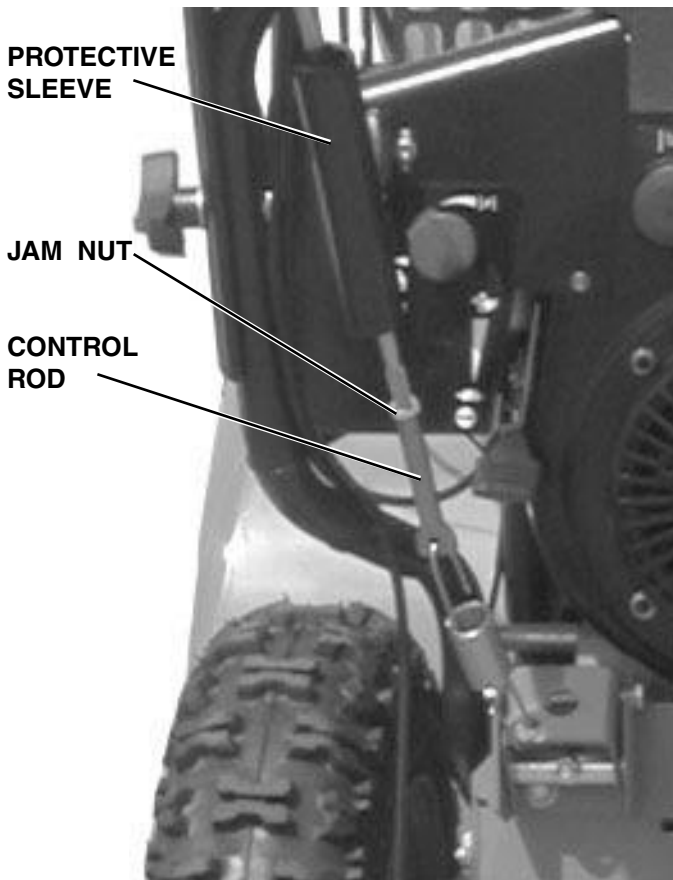
6.21 Adjustment for Drive System Control Rod

* The Drive System Control Rod is on the handle at the left side of the operator. Adjustment is required if engagement is sluggish or if there is creep.

* Loosen the jam nut, remove hairpin, and disconnect control rod from control lever. Turn the rod counter-clock-wise to lengthen, clock-wise to shorten. Reconnect the control rod lever.

Slack should be removed and the rod should be snug. If not, readjust. Then tighten jam nut.

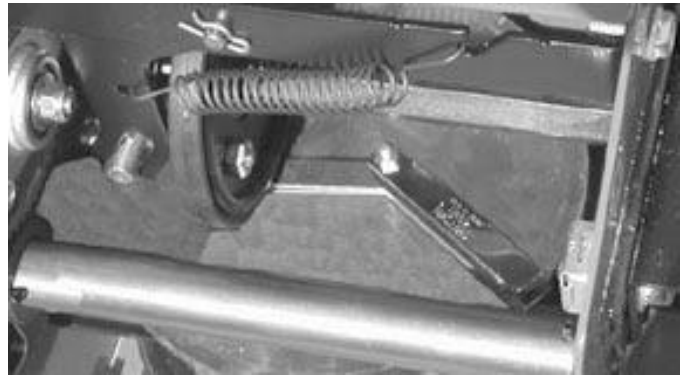
* If this adjustment is not successful, use anti-seize to lubricate the Hex Short Shaft (page 39 key 28) on the Drive Plate Assembly (key 26). See Section 7.45 for disassembly information .



6.22 Adjustment for worn traction disc ring

* Remove spark plug wire when making adjustments.

* Position snowthrower with auger down and remove Bottom Pan to inspect disc. (see Section 7.42)



* If the rubber ring on the traction disc is missing chunks, has deep cracks, or is worn so the rubber ring clamp plates are 1/16" or less from touching the drive plate in engaged position, the rubber ring must be replaced.

* If the rubber ring passes inspection, in the disengaged position adjust the clearance between the Rubber Wheel Ring and the Drive Plate Assembly to .125"-.140".

* If there is a complaint that the drive does not disengage properly, check to see that this dimension is at least .125".

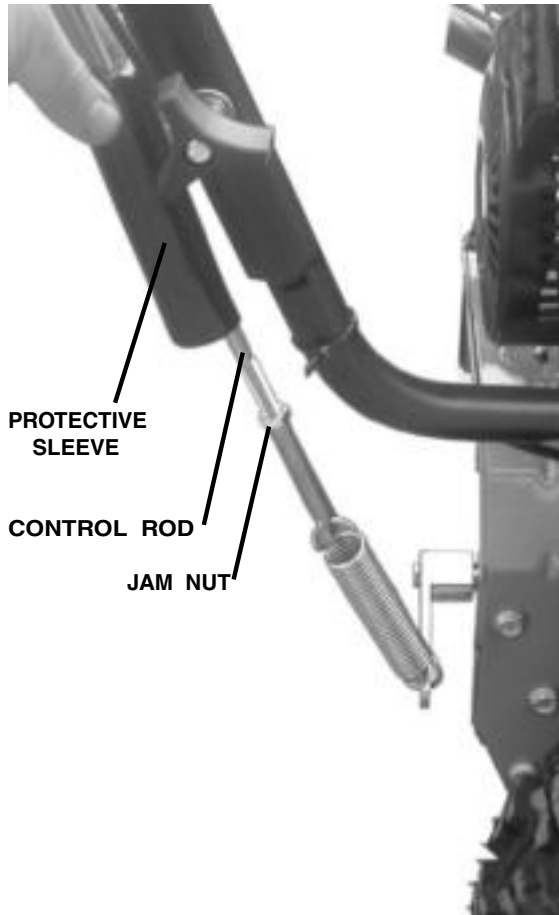


* To adjust clearance, use 9/16" nut connecting the bellcrank to a clutch rod. It is at bottom end of the Drive Control Rod (p 35 key 36). When a new rubber ring is installed, this nut is adjusted so that two threads are showing past the nut. When the ring is worn, it can be adjusted with up to 1/2" of rod past the nut. This increases the force of the drive plate on the rubber ring to stop slipping. The nut should never be turned so that more than 1/2" extends beyond the nut. (See Section 7.43)

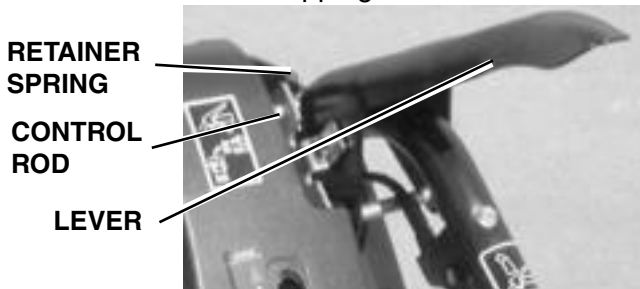
NOTE: If the Plates supporting the Rubber Wheel Ring come in contact with the Drive Plate Assembly (p 39 Key 26) extreme wear may require that these parts be replaced.

6.23 Adjustment for Auger Control Rod

* The Auger Control Rod is on the handle at the right side of the operator. **Adjustment is required if engagement is sluggish or if the auger does not stop within 5 seconds of the release** of the auger engagement lever.



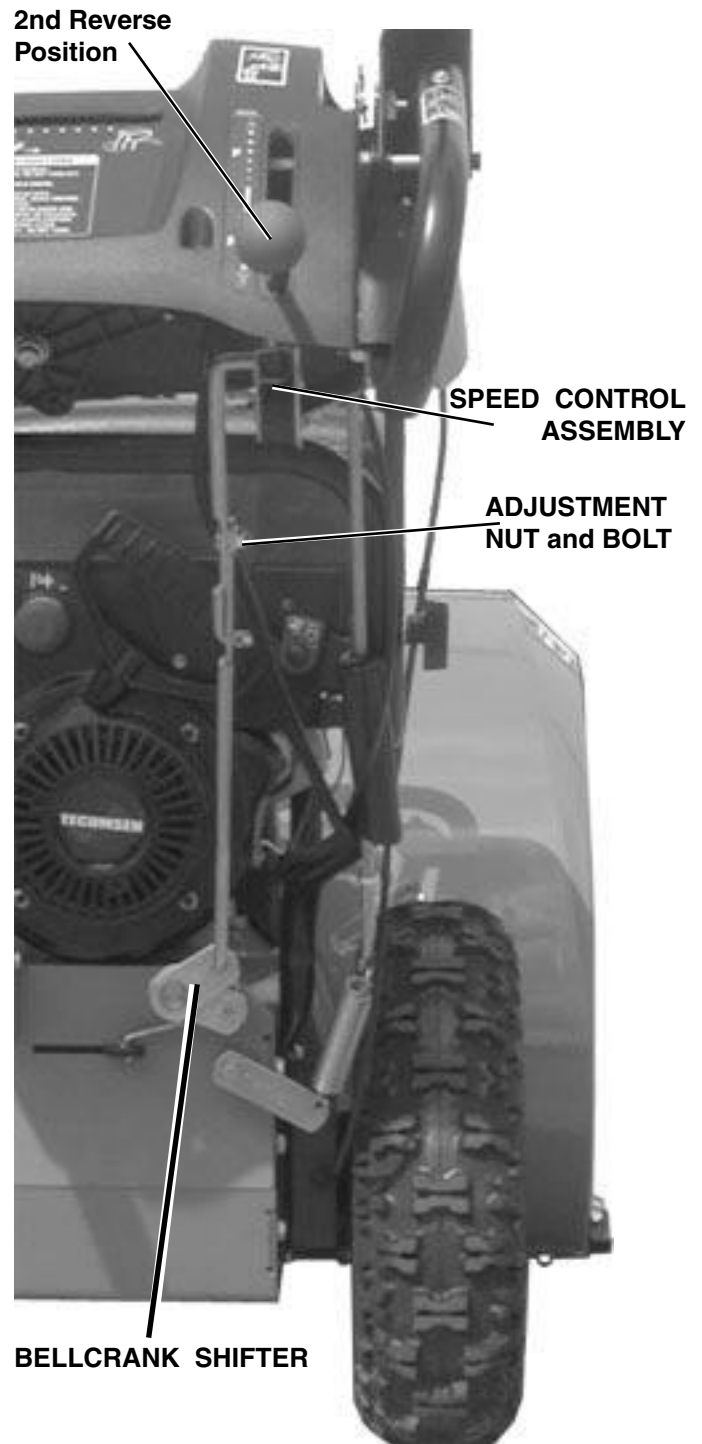
- * Raise protective Spring Sleeve to expose jam nut.
- * Loosen the jam nut.
- * Remove hairpin and disconnect control rod from control lever.
- * Turn the rod counter-clockwise to lengthen, clockwise to shorten.
- * Reconnect the control rod to the control lever. The linkage should be slightly loose. If not readjust, then tighten jam nut.
- * Test auger disengagement. Stopping time must be 5 seconds or less.
- * If stopping is more than 5 seconds, readjust rod for more slack. Remove belt cover and check to see if idler arm will move freely by engaging auger control lever. Retest stopping time.



6.24 Adjustment for Speed Control Rod

* The Speed Control Rod is attached to the speed selector at the right side of the operator console. Adjustment is required when there are less than two speed positions for reverse.

* Speed Control in last notch (2nd reverse position)



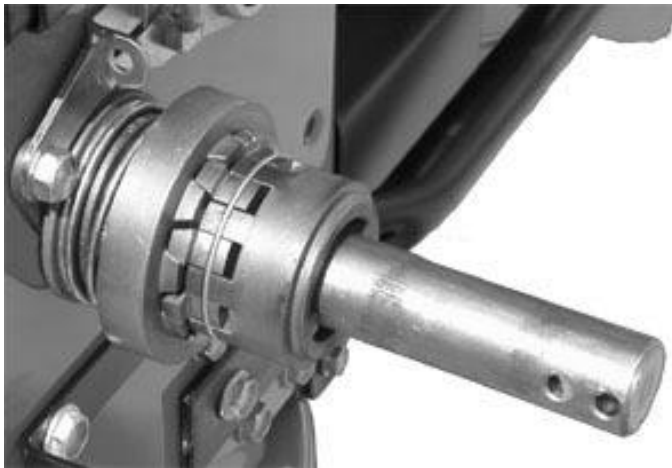
- * Loosen the nut and bolt at the middle of the rod.
- * Hold Bellcrank Shifter (p 35 key 33) in maximum counterclockwise position with one hand, and tighten the nut and bolt with other hand.

6.31 Adjustment for Power Steering Slips

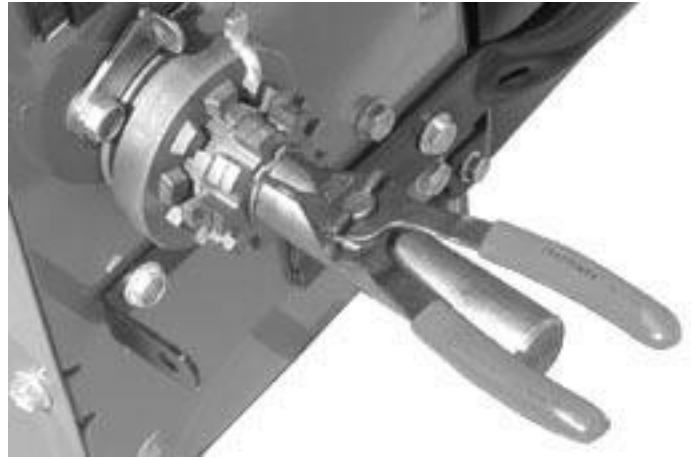
* Operate to determine which side is slipping.



* Place Snowthrower with Auger end down.



* Remove wheel and power steering parts on side with slipping power steering, Section 7.22.

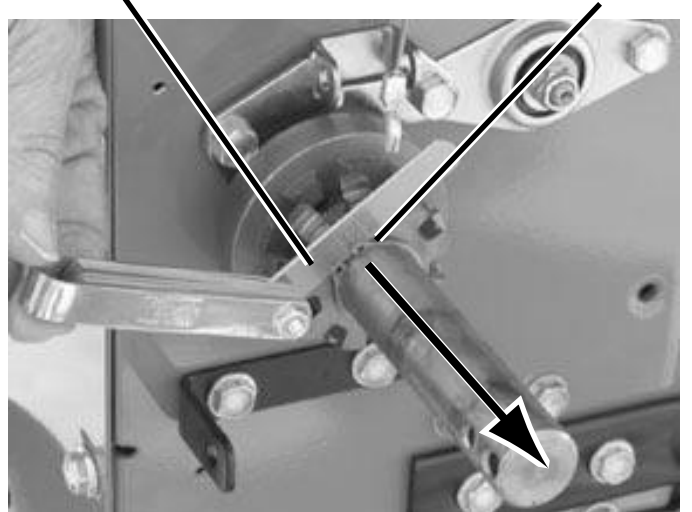


* Reinstall Thrust Washer (p 37 key 27), Axle Lobe (26), Wheel Lobe (23), and Retaining Ring (key 33).

* Pull axle shaft outward to maximize tolerances.

FEELER GAUGE

RETAINER RING



* Measure the gap between the Wheel Lobe (part 179136) and the Retaining Ring (key 33).

* If the gap is .030" or more, install an additional 174697 Hardened Thrust Washer next to the Axle Bearing to eliminate slip.

* Reinstall all parts with needed thrust washers.

* Use antiseize compound on splined parts during reassembly. Refer to page 33 for exploded parts view.

SECTION 7: Systems and Repair Procedures

- 7.10 Handles and Console Panel – Exploded Parts View**
- 7.11 Remove Console Panel to service controls and handles**
- 7.12 Auger Engagement Interlock**
- 7.13 Replace Headlight –**
- 7.14 Control Panel, Discharge Chute, Controls – Exploded Parts View**
- 7.16 Replace Chute Control Cable**
- 7.17 Replace Chute Deflector Control**
- 7.18 Replace Speed Control Linkage or Speed Control Assembly**
- 7.19 Remove and Replace Power Steering Control Cable**

- 7.21 Power Steering and Wheel - Exploded Parts View**
- 7.22 Repair Power Steering Clutch**
- 7.23 If Power Steering Slips -**
- 7.24 Power Steering uses Klik Pin in one position only**
- 7.25 Standard Drive uses Klik Pin in Drive and Push positions**

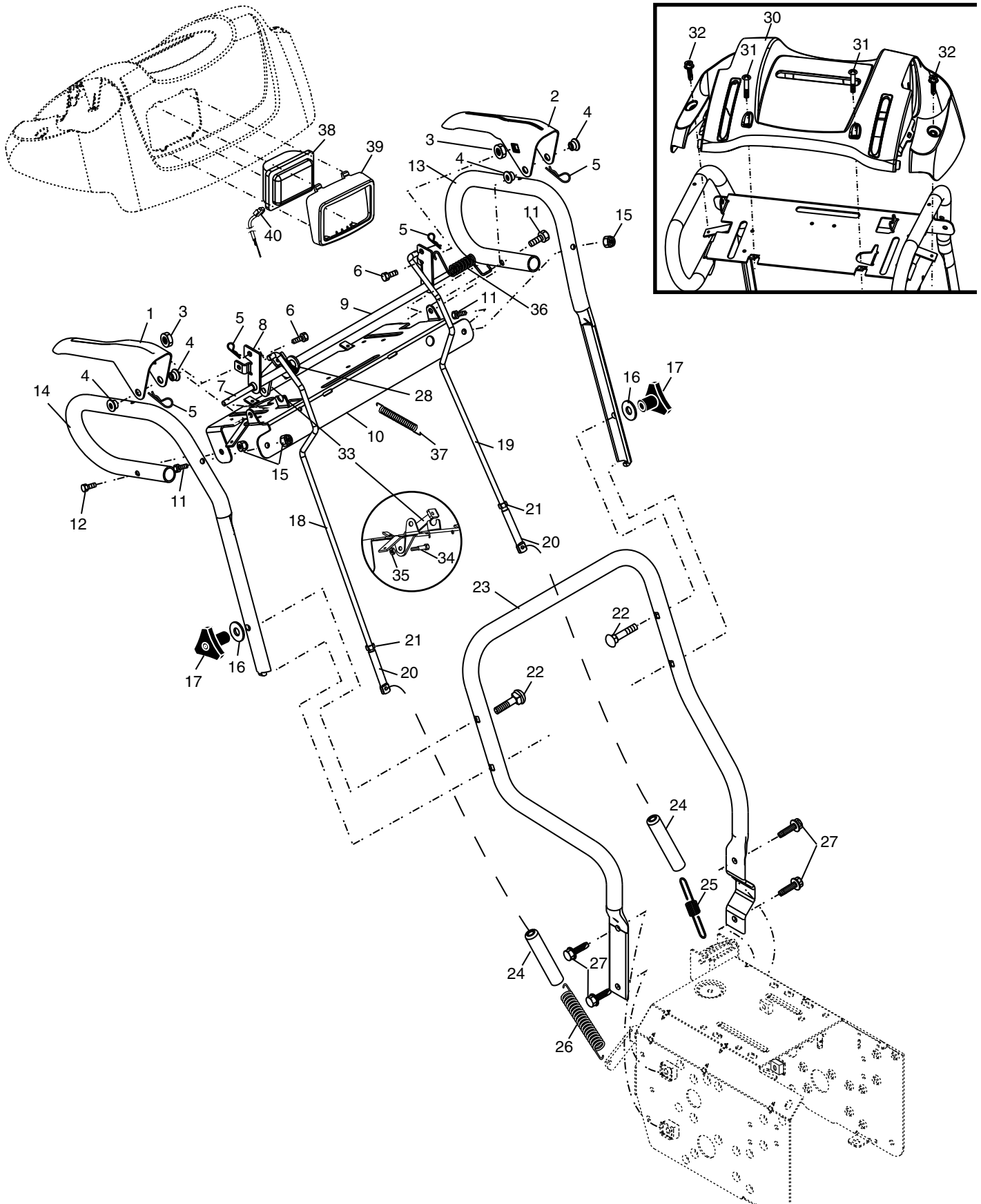
- 7.31 Idlers, Belts, Pulleys**
- 7.32 Replace Auger Belt**
- 7.33 Belt Guide Dimensions**
- 7.34 Replace Traction Drive Belts**
- 7.35 Replace Traction Drive Pulley**
- 7.36 Idler Spring Locations**
- 7.37 Remove And Replace Engine**

- 7.41 Exploded view of Friction Disc, Friction Plate, and Gears**
- 7.42 Procedure to Remove Bottom Pan**
- 7.43 Replace Friction Disc or Friction Disc Shaft**
- 7.44 Replace Rubber Wheel Ring or Hex Shaft**
- 7.45 Replace Drive Plate Assembly Lubrication INSTRUCTION)**
- 7.46 Disassemble Drive Plate / Drive Pulley Assembly**
- 7.47 Remove and Replace Wheel Drive Axle / Gear**

- 7.51 Remove Chute Assembly for servicing other items**

- 7.61 Remove Auger Assembly for servicing**
- 7.62 AUGER Exploded Parts View**
- 7.63 Replace Auger Shear Bolts**
- 7.64 Replace Impeller Shear Bolts**
- 7.65 Disassembly of Auger Pulley, Auger, Impeller, and Auger Housing**
- 7.66 Re assembly of Auger Assembly**
- 7.67 Replace Scraper Bar – reversible**
- 7.68 Gearbox Repair Information**

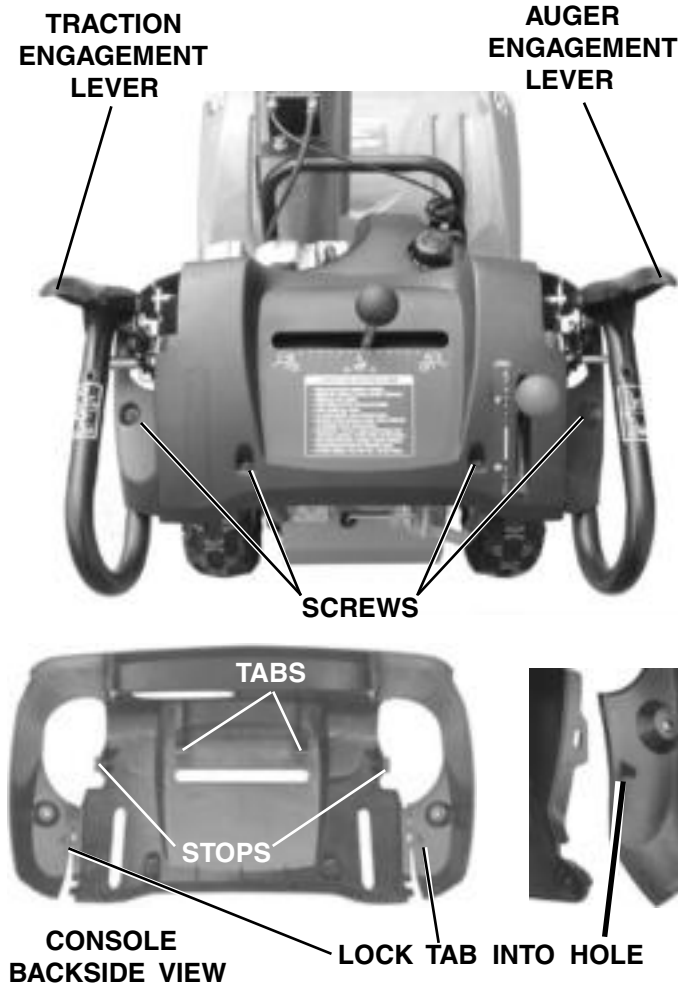
HANDLES



For Husqvarna Parts Call 606-678-9623 or 606-561-4983

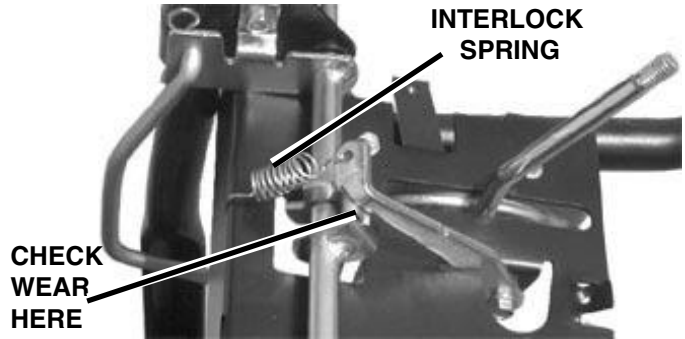
Section 7.11 Remove Console Panel to service controls and handles.

- 1) Remove the four 5/16" screws that hold panel to handle assembly. On re-assembly do not over tighten.
- 2) Remove all of the knobs and the Headlight (See Section 7.13 below).
- 3) Carefully separate lock tab at each side and remove control panel from assembly.
- 4.) Reverse to reassemble. Check picture for position of tabs and stops on back side of Console Panel.



Section 7.12 Auger Engagement Interlock

- When the auger and the traction engagement levers are engaged at the same time, you can remove your hand from the auger lever and the auger will remain engaged as long as the traction lever is also held down. This is to allow the operator to adjust the discharge chute direction without stopping. If problems occur with interlock, check the spring and look for wear on the bracket. You will see this on the right with the console panel removed.



Section 7.13 Replace Headlight

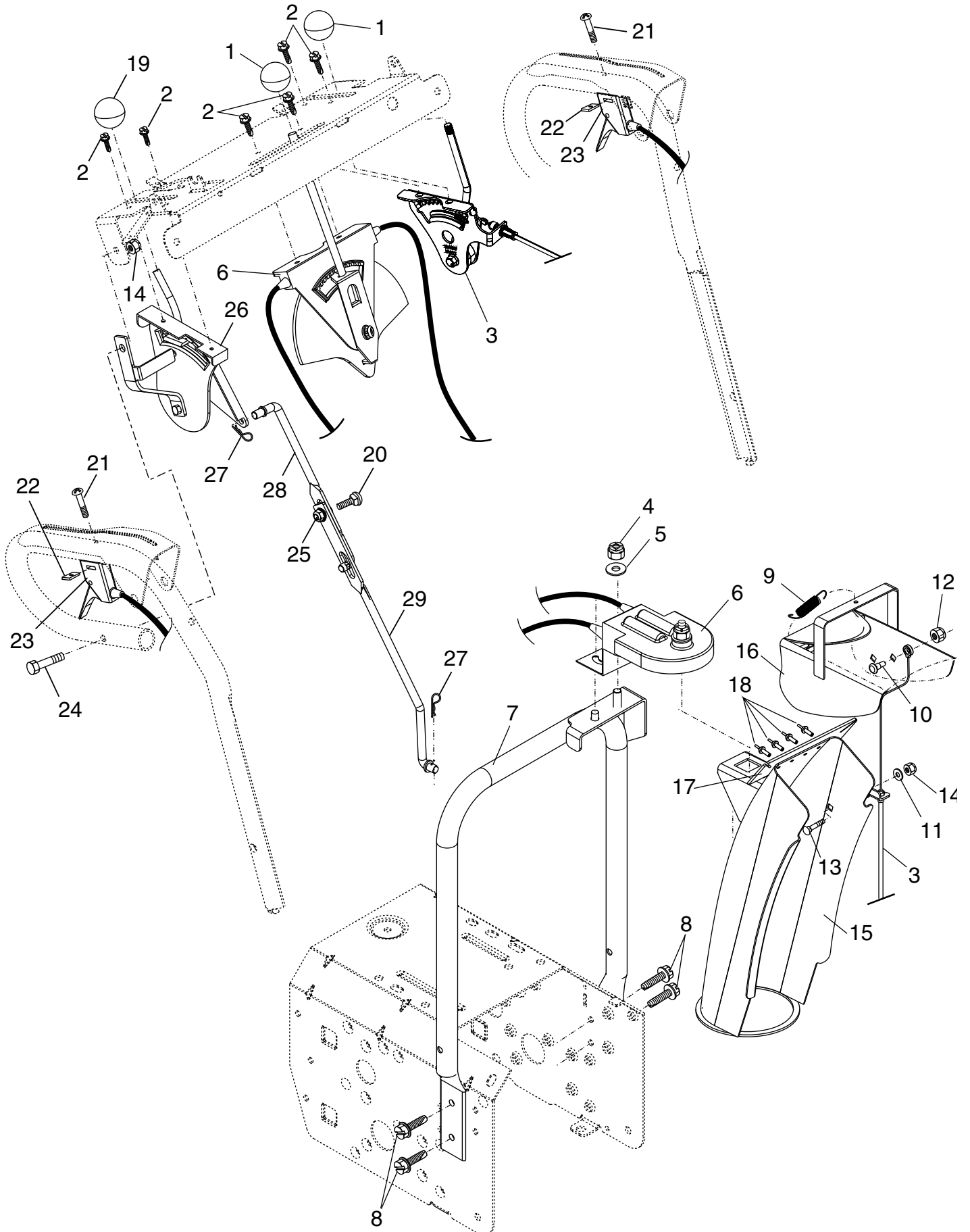
- * Use two fingers to push up on Headlight Bezel to release bottom tabs and remove Headlight.
- * To remove harness connector, pull tabs on both sides outward while pulling connector from Headlight.

NOTE: Light is 'on' when engine is running. There is not a switch. See engine manufacturers manual for information on charging system.



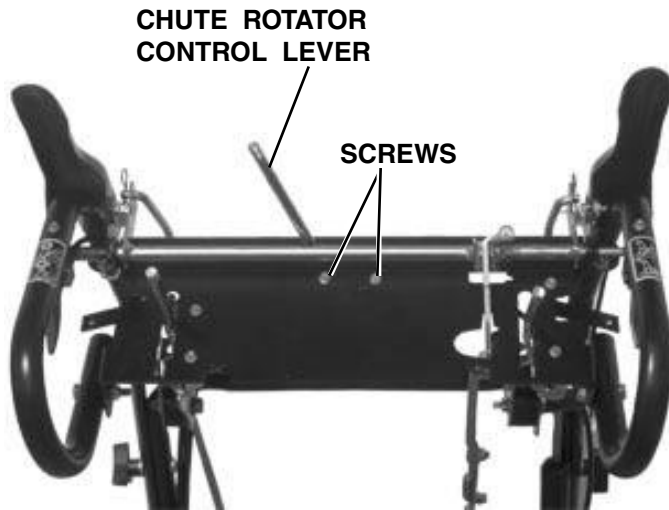
SNOW THROWER SECTION 7.14

CONTROL PANEL / DISCHARGE CHUTE

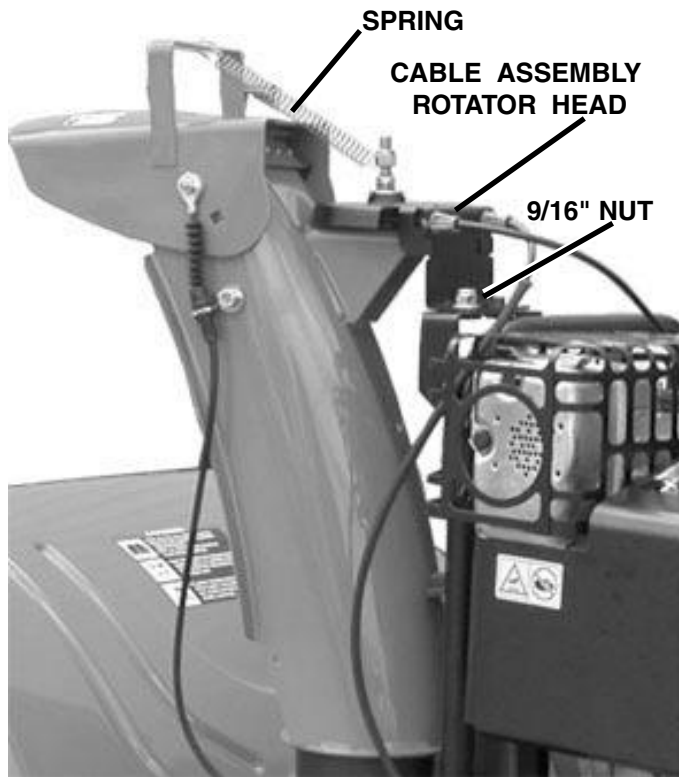


Section 7.16: Replace Chute Rotator Cable

- 1) Remove control panel (see section 7.11 above, for Control Panel removal instructions)



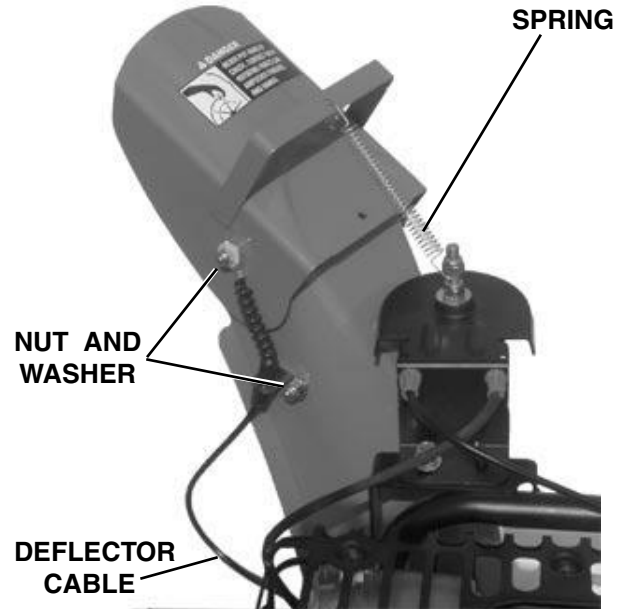
- 2) Remove both 5/16" screws holding rotator control to handle assembly.



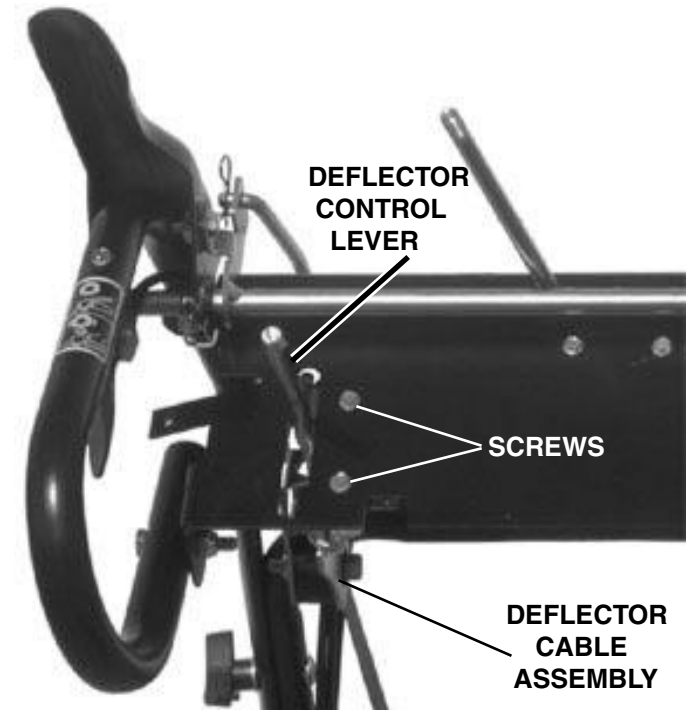
- 3) Remove spring from deflector, if applicable.
- 4) Remove 9/16" nut holding control rotator head to tubular support, and remove cable assembly from the chute. The chute will not be retained at the top, DO NOT drop chute.
- 5) Cut all cable ties noting locations, and paying attention to the routing of cable particularly at the lower handle.
- 6) Reverse process to install new cable. Install new plastic ties to hold cables.

Section 7.17: Replace Chute Deflector Control

- 1) Remove control panel (see section 7.11).



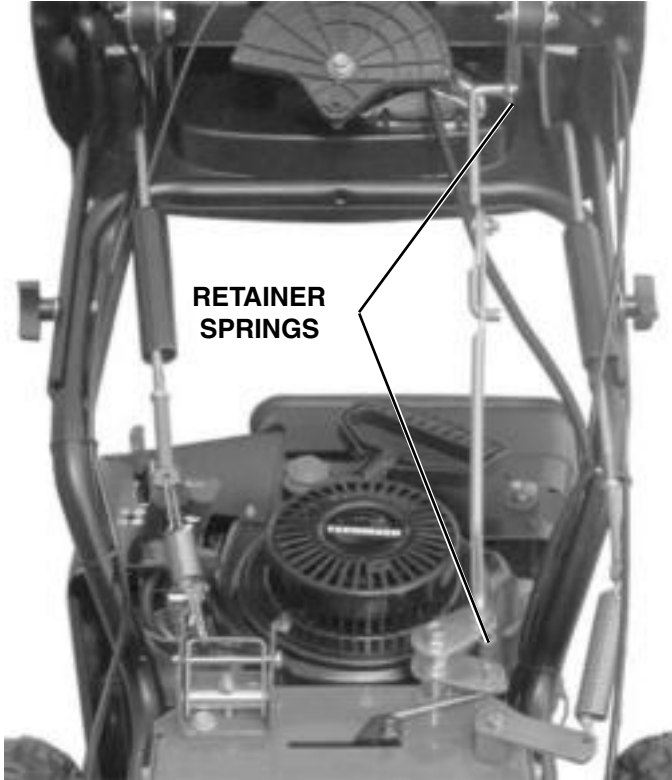
- 2) Remove the nut and washer that secure the cable eyelet to the deflector.
- 3) Remove the nut, washer and bracket that secure cable to the chute.



- 4) Remove both 5/16" screws that secure cable assembly to the handle assembly.
- 5) Cut the cable ties that secure the cable to the snowthrower, paying attention to the routing of the cable and the location of ties.
- 6) Reverse process to install the cable and new plastic ties.

Section 7.18: Replace Speed Control Linkage or Speed Control Assembly

- 1) Check for proper linkage adjustment in Section 6.24 before replacing part.
- 2) Remove control panel (see section 7.11)



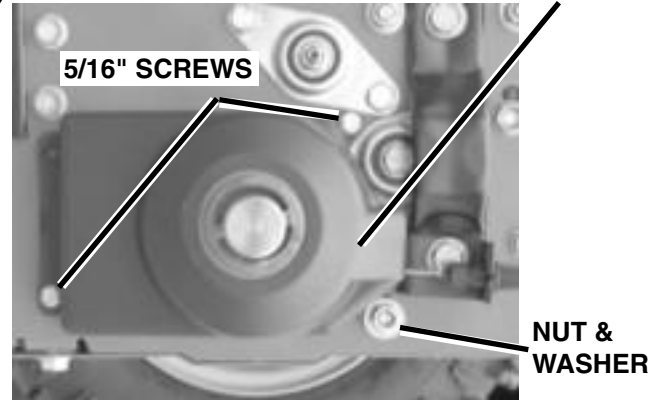
- 3) Remove retainer spring from both ends of linkage.



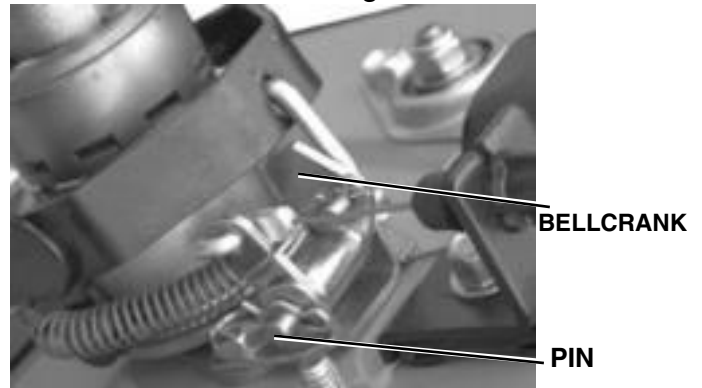
- 4) Remove the two 5/16" hex head screws holding control to handle assembly.
- 5) Reverse process to install a new linkage and perform adjustment in Section 6.24.

Section 7.19: Remove and Replace Power Steering Control Cable

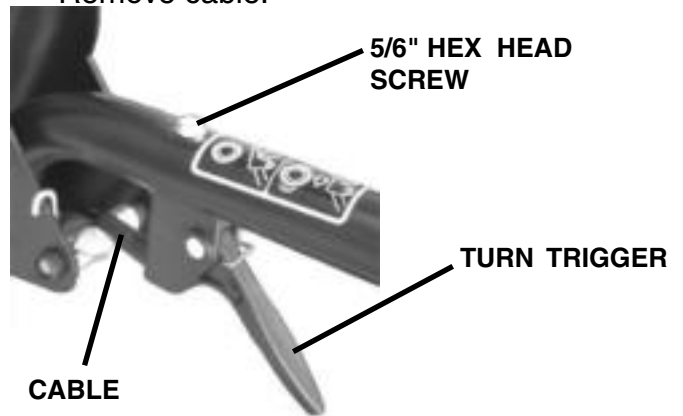
- 1) Remove fuel from fuel tank
- 2) Position blower auger end down.
- 3) Remove klik pin that secures wheel,
- 4) Remove wheel **POWER STEERING COVER**



- 5) Remove hardware that secures the power steering cover.
- 6) Cut wire ties that secure power steering cable to handle, noting location of ties.



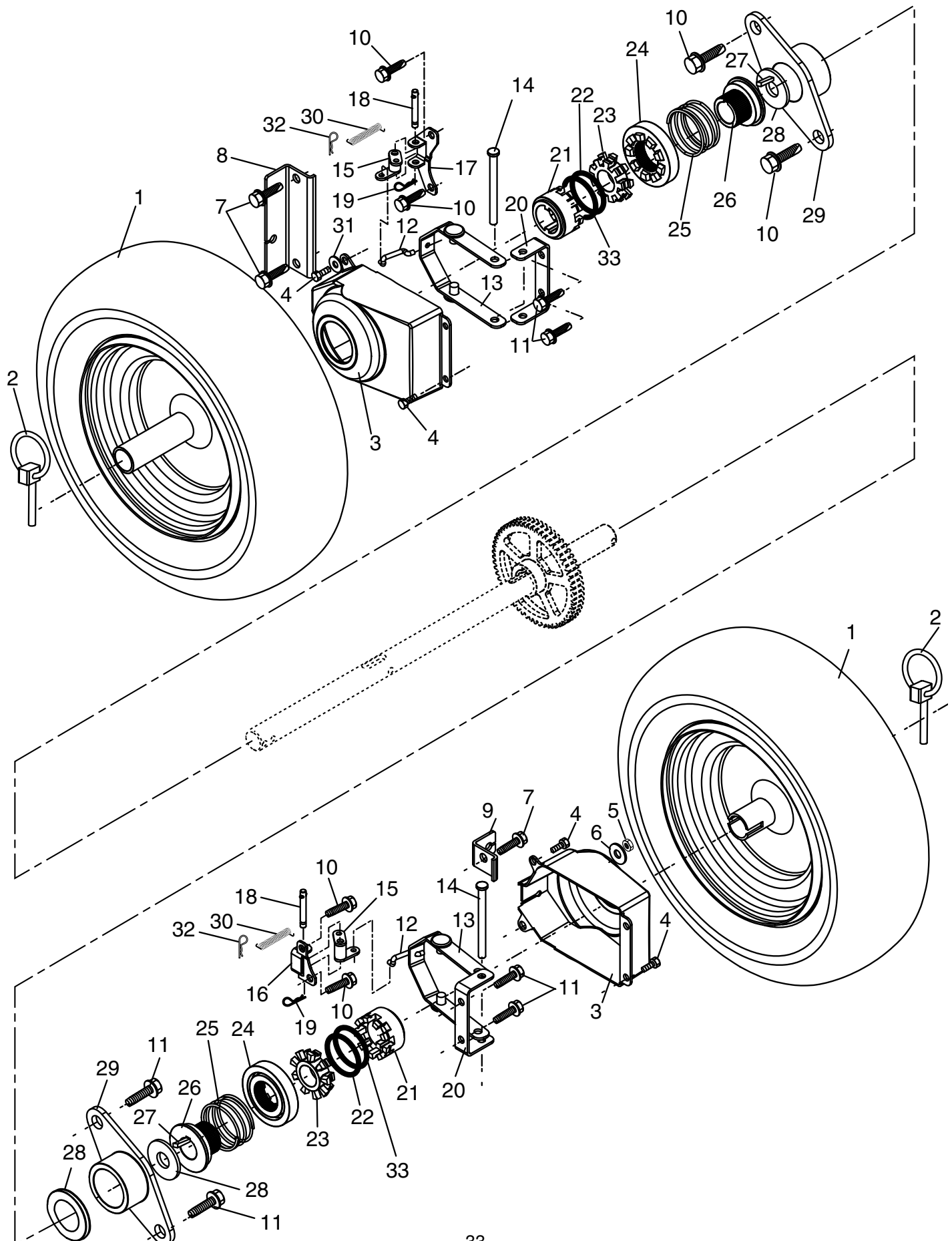
- 7) Remove spring and pin holding bellcrank.
- 8) Unhook cable from bellcrank. Remove 5/16" screw that secures trigger to handle. Remove cable.



- 9) Remove 5/16" screw that secures trigger to handle.
- 10) Reverse process to install cable.

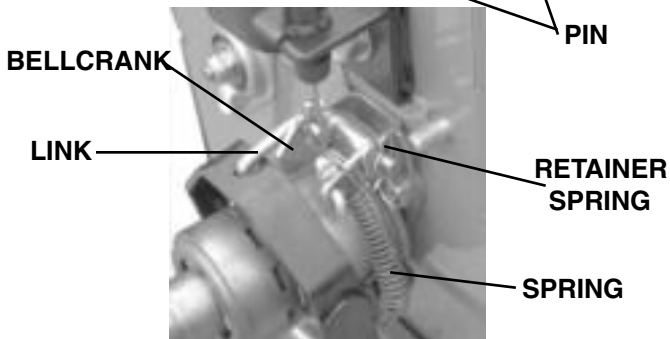
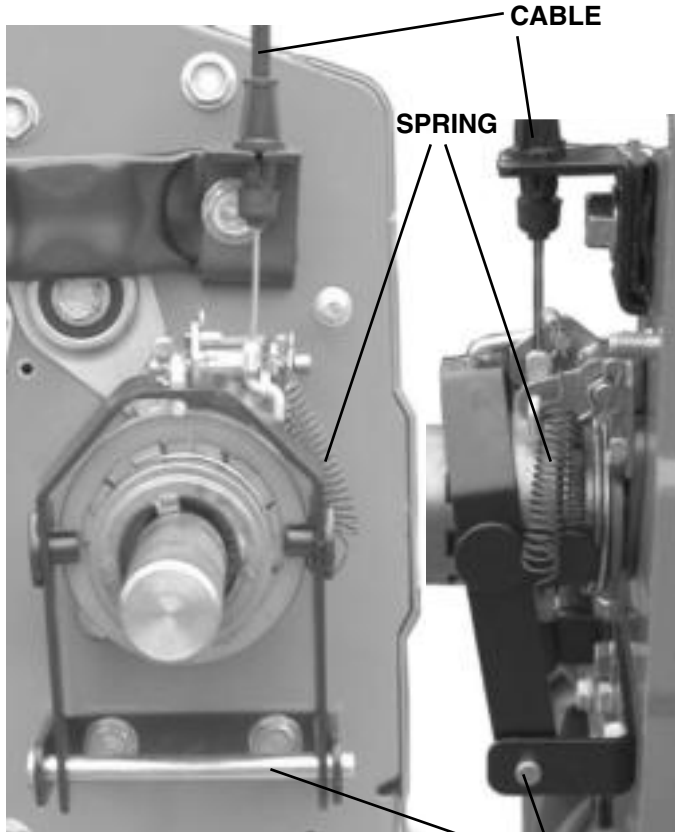
SNOW THROWER - SECTION 7.21

POWER STEERING AND WHEELS



7.22 Repair Power Steering Clutch

When reassembled, the splined parts must be lubricated with metallic anti-seize compound.



7.23 If Power Steering Slips -

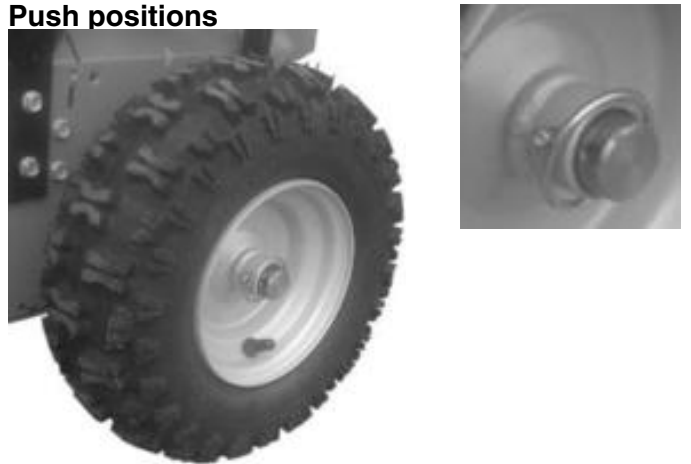


Go to 6.31 for procedure to add shim washer if power steering slips on one side.

7.24 Power Steering uses Klik Pin in one position only



7.25 Standard Drive uses Klik Pin in Drive and Push positions



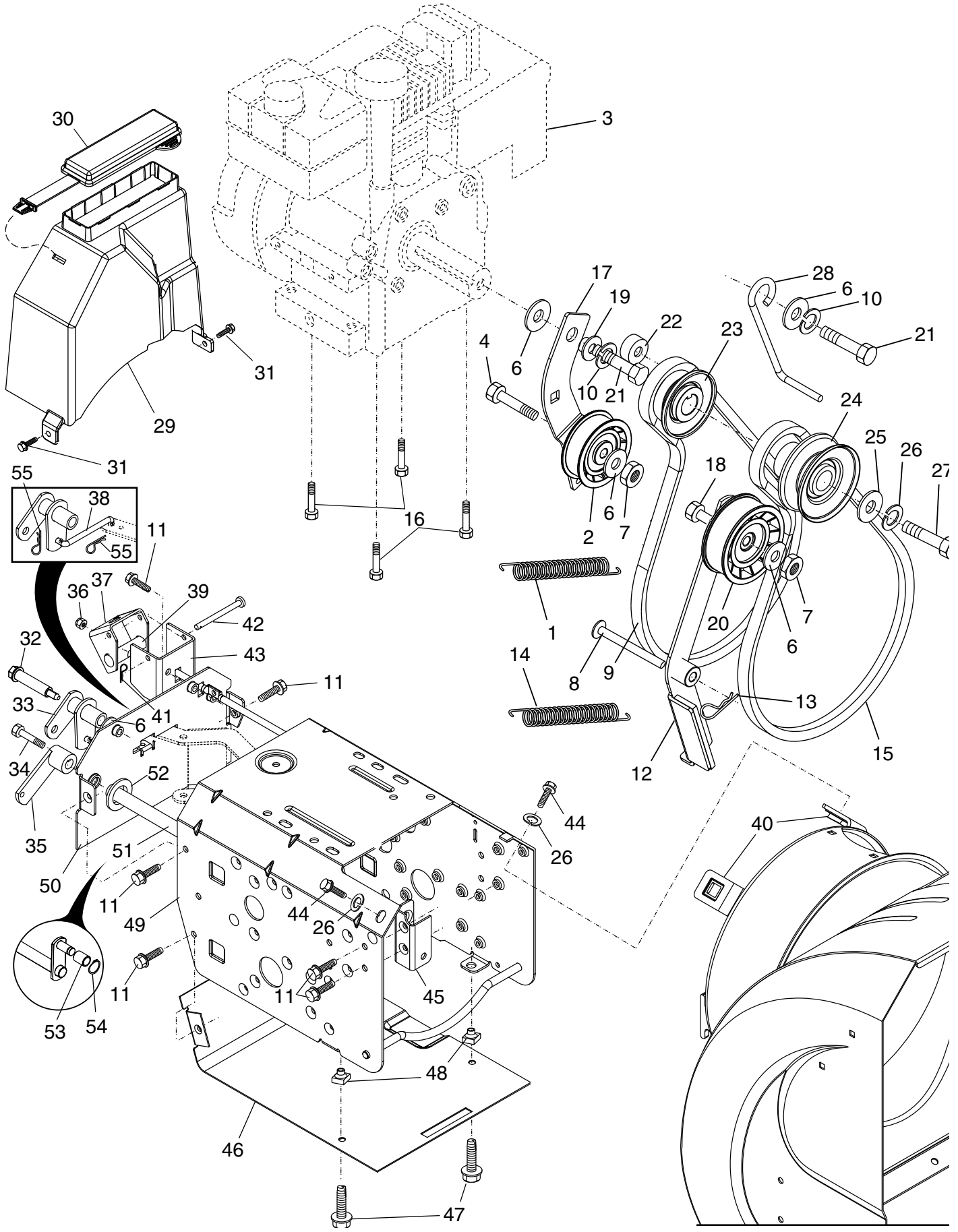
1) To freewheel, for models without power steering, remove klik pin from axle.



2) Push wheel hub in towards the body of the blower

SNOW THROWER - SECTION 7.31

CHASSIS / ENGINE / PULLEYS

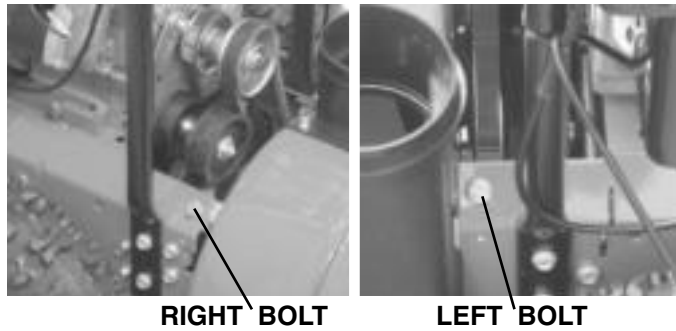


7.32 Replace Auger Belt

- 1) Remove spark plug wire from plug.
- 2) Remove Chute Assy. See section 7.51
- 3) Remove both 3/8" screws that secure belt cover. Remove belt cover.



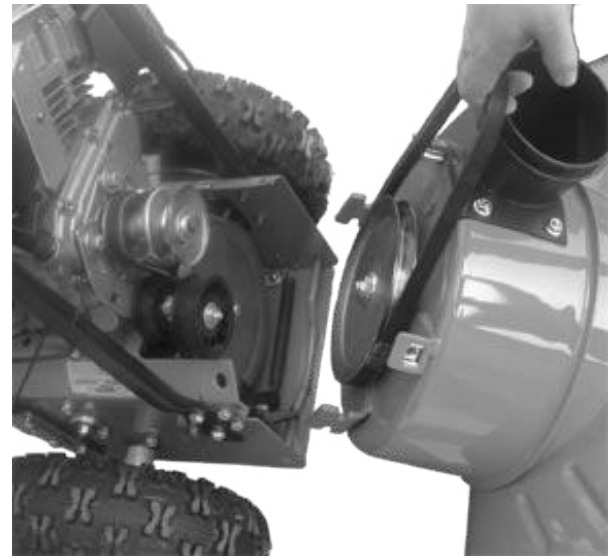
- 4) Place a chair or saw horse under handle for support after auger section is split.



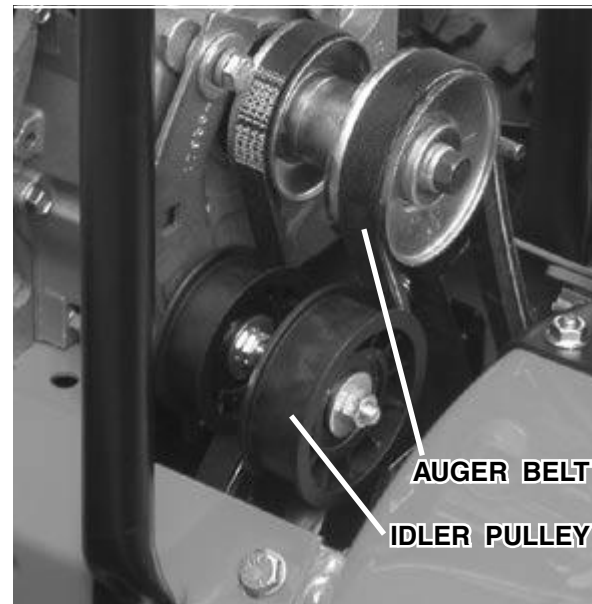
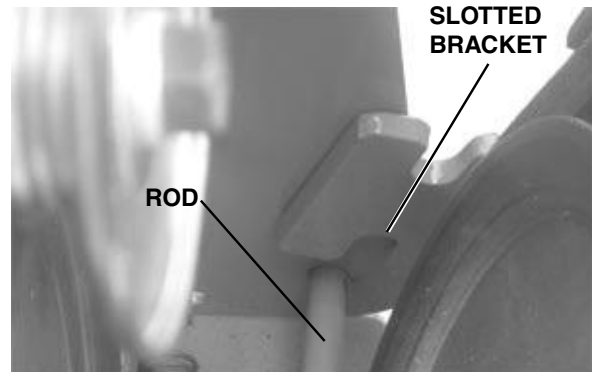
- 5) Remove both 9/16" hex bolts that hold the powerhead and auger housing together.



- 6) Remove belt from drive pulley as you separate the auger from the powerhead assembly

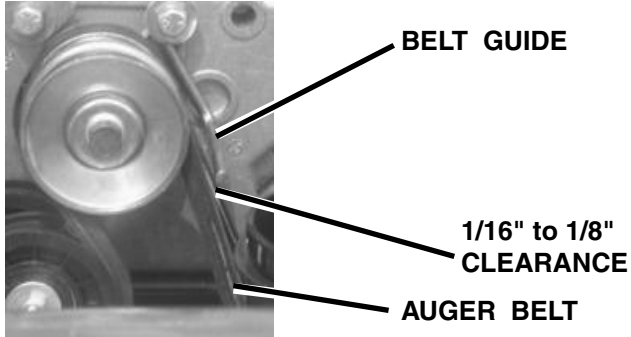


- 7) Place new belt on auger pulley.
- 8) Lift auger housing into position and ensure that slotted bracket on auger housing are placed onto the rod at base of powerhead



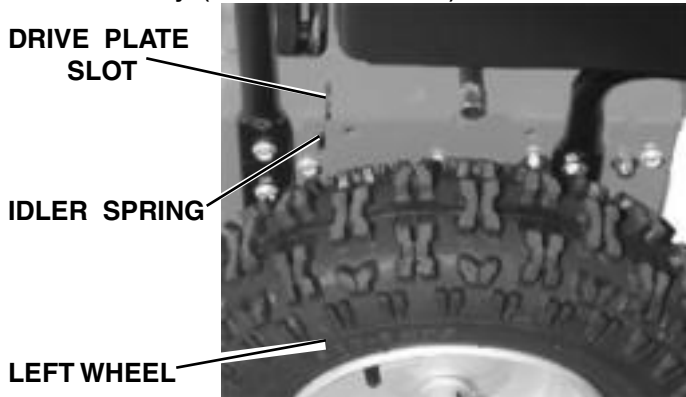
- 9) Route auger belt around pulleys, checking that the belt does not catch on idler brkt.
- 10) Reinstall bolts to secure auger housing to the powerhead.
- 11) Reinstall the belt cover and the chute assembly. (See Section 7.51)

7.33 Belt Guide Dimension.

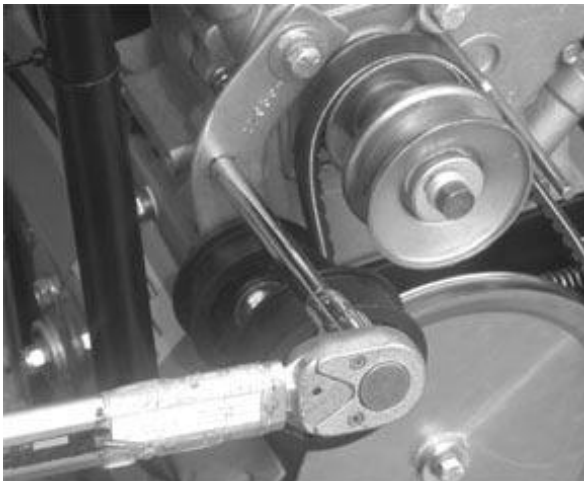


7.34 Replace Traction Drive Belt

- 1) Separate auger assembly from Powerhead assembly (See section 7.61)



- 2) Ensure that idler spring is in place before re-assembly. Put tape over the spring hook on the outside of housing to keep the spring in proper position.



- 3) Use a 3/8" ratchet with 6" extension inserted in square opening on the idler arm to release the tension on the belt. Pull on ratchet to rotate idler arm.
- 4) Remove defective belt and replace with new traction drive belt.

NOTE: Idlers, Idler Brackets, and Springs for both drive Belts are now accessible.

- 5) Re-attach auger housing to powerhead (see section 7.61 or section 7.32)

7.35 Replace Traction Drive Pulley

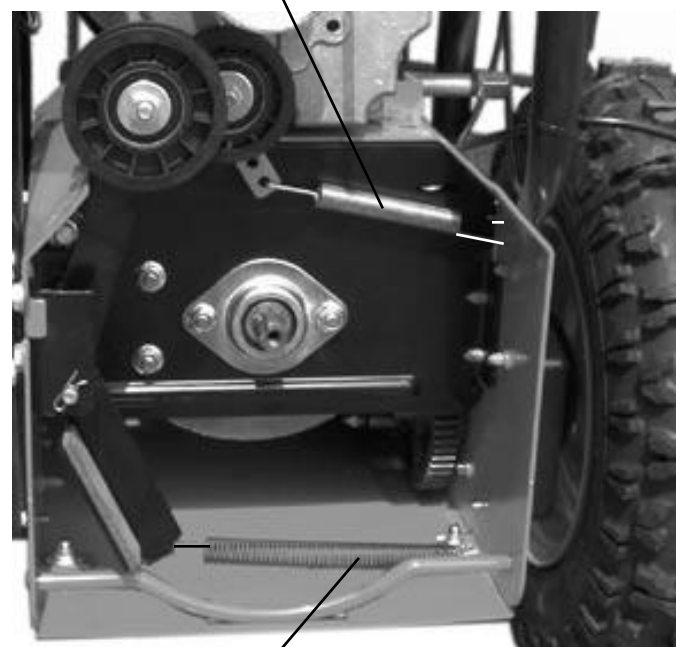
- 1) Separate powerhead assembly from auger housing assembly (see section 7.61)



- 2) Remove Traction Drive Belt (Section 7.33) from engine pulley.
- 3) Use traction drive belt to prevent drive pulley from turning remove 1/2" hex head bolt holding the pulley in place
- 4) Use antiseize compound before replacing Pulley and reinstall washer, bolt at 15-20 Ft.Lbs., and belt.
- 5) Reassemble auger housing to powerhead assembly.

7.36 Idler Spring locations

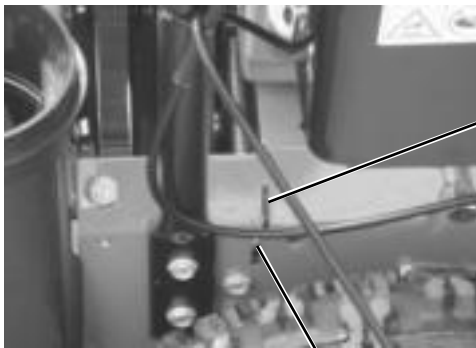
TRACTION BELT SPRING



AUGER BELT SPRING

7.37 Remove and replace engine.

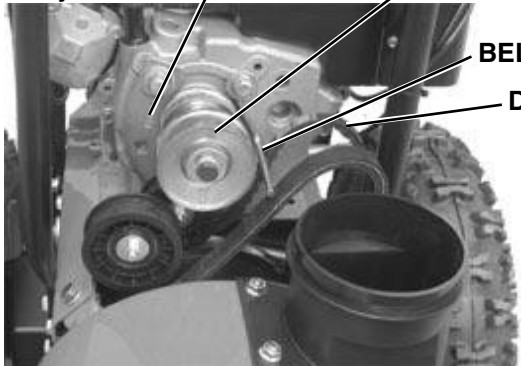
- 1) Remove belt cover (Sections 7.31 & 7.32).
- 2) Remove both belts from engine pulleys. See page 20



FRAME SLOT FOR DRIVE PLATE

DRIVE SPRING

- 3) Tape idler Spring to outside of powerhead body. IDLER BRACKET ENGINE PULLEYS



BELT GUIDE

DRIVE BELT

- 4) Remove traction drive belt idler bracket, belt guide for auger drive, and engine pulleys.



BARREL CONNECTOR

HOUSING SCREW

- 5) Disconnect headlight wire harness on engine.



- 6) Position Snowthrower with front of auger down.

- 7) Remove Frame Bottom Pan (Section 7.42).
- 8) Remove Drive Plate Assy. (Section 7.43).



WOOD SUPPORT

- 9) Place a piece of wood (15" long by 3/4" thick) between Engine and Pivot Support.

- 10) Use a 1/2" socket with 15" extension to remove the 4 engine mounting bolts.

- 11) Remove engine.

- 12) Place new engine on side on pivot support for reinstallation. A board about 3/4" thick placed across pivot support will help to position engine while starting self-tapping screws. Torque screws holding engine to chassis at 25-30 Ft.Lbs.

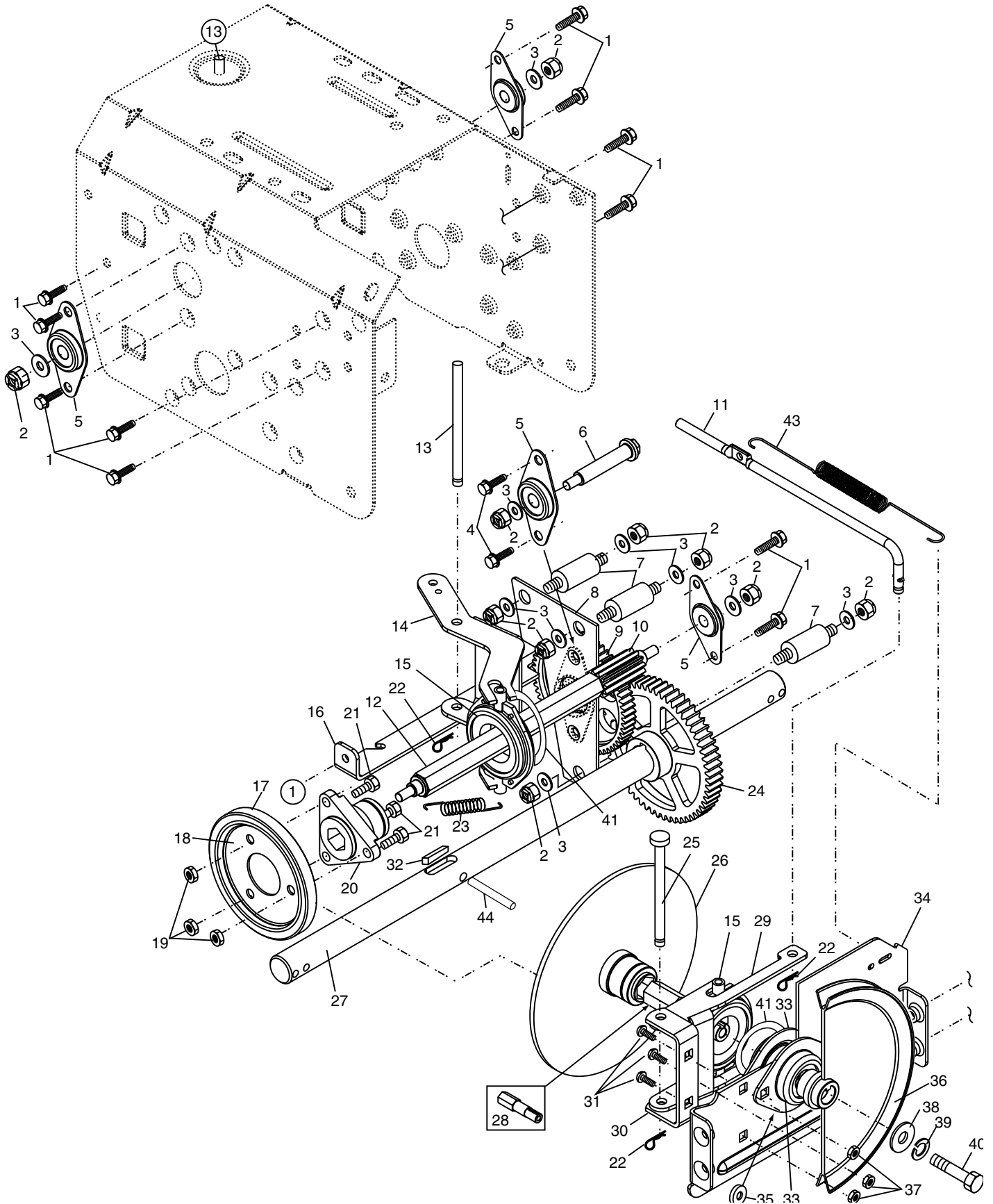
- 13) Reinstall Drive Plate Assembly, (Section 7.45)

- 14) Place wheels back on axles so the blower can be tipped back into operating position. Reinstall engine pulleys, idler bracket with idler pulley, belt guide, attach idler spring, and belts. Adjust Belt Guide as shown in Section 6.01.

NOTE: With Frame Bottom Pan off, the belts are accessible from the bottom for installation on pulleys. Do not install bottom Pan until belts are fully installed.

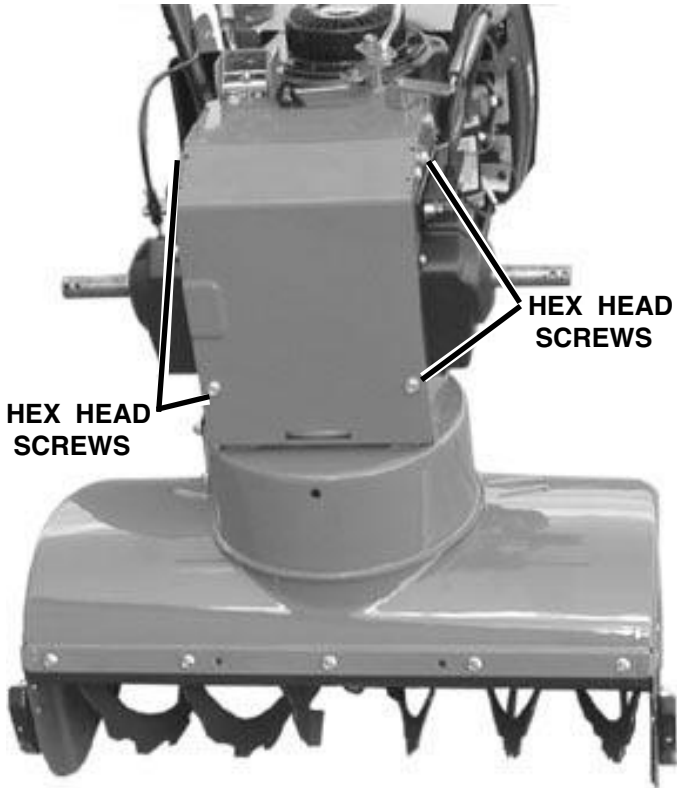
- 15) Reposition snow thrower with front of auger down. Reinstall frame bottom pan. Tip snowthrower back to operating position. Reinstall belt cover.

DRIVE

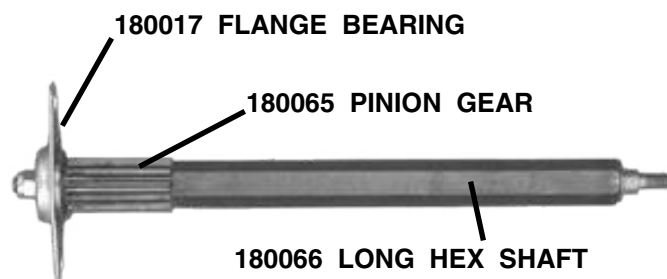


7.42 Remove Frame Bottom Pan

- 1) Remove fuel from fuel tank.
- 2) If repair involves removal of Drive Plate Assembly. See section 7.45.
- 3) Remove Belt cover. Use tape to hold end of Drive Belt Idler Spring in place, see page 37.
- 4) If the Drive Plate Assembly is to be removed, use a 3/8" drive ratchet with a 6" extension to remove tension from the traction drive belt by pulling up. Remove belt from engine pulley, see Section 7.34.

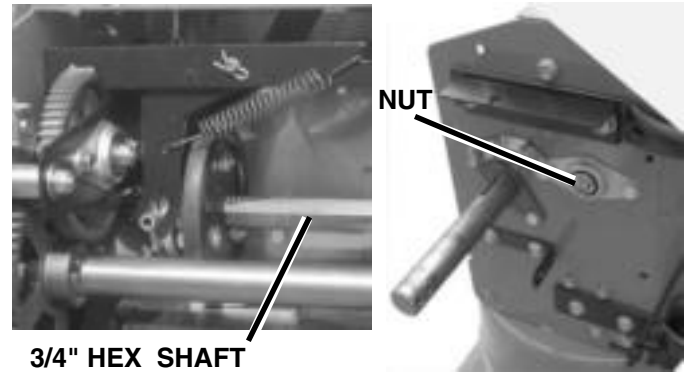


- 5) Position snowthrower so auger is down and handles are up.
- 6) Remove both wheels
- 7) Remove the four Hex Head Screws that hold the bottom pan to the frame.
- 8) Reverse to reassemble.

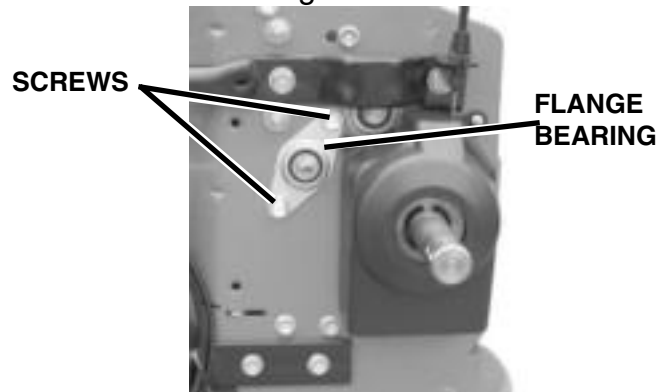


7.43 Replace Rubber Wheel Ring or Hex Shaft

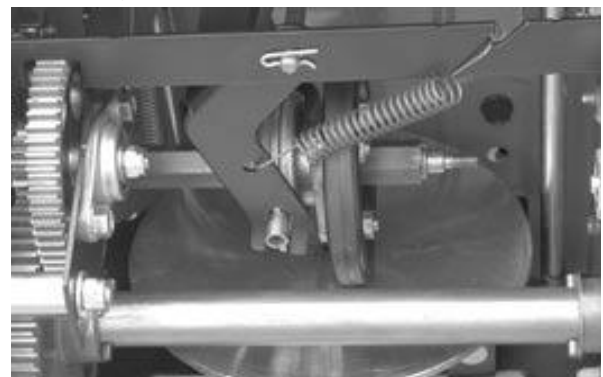
- 1) Remove wheels
- 2) Remove bottom pan (Section 7.42)



- 3) Using a 3/4" wrench to hold the shaft, remove nut on right side



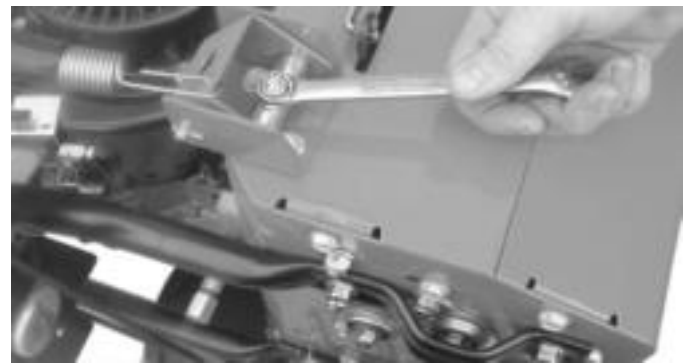
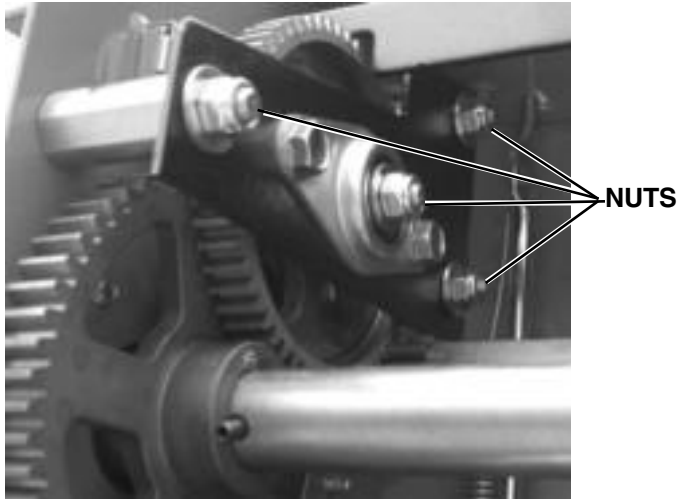
- 4) Remove both screws that secure flange bearing on left side.



- 5) Pull bearing/hex shaft assembly out from left side.
- 6) Remove Assembly with Rubber Wheel Ring from shifter fork and support Plates.
- 7) Replace Rubber Wheel Ring and torque bolts to 14-18 Ft.Lbs.
- 8) Reverse process to install. Lubricate hex shaft with metallic anti-seize before re-installing. Check to see that trunion bearing round tabs are positioned in slots of shifter fork.

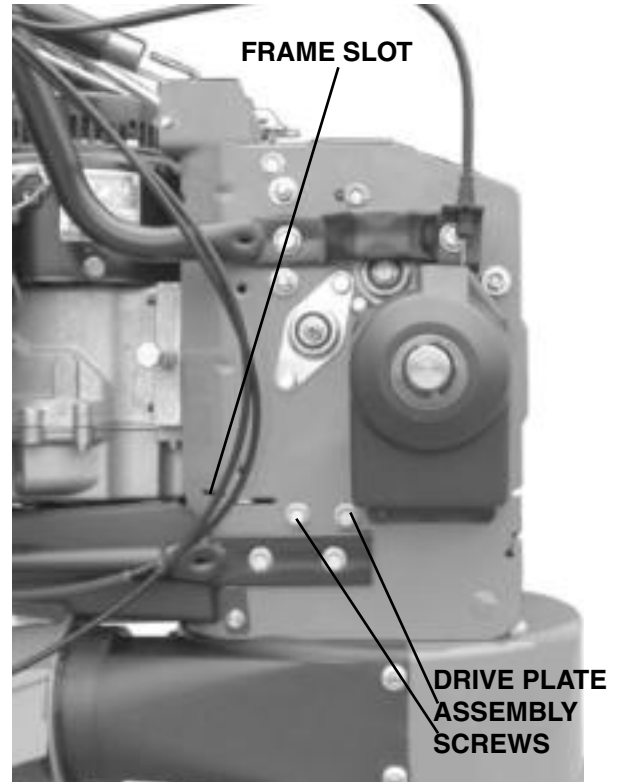
7.44 Replace Intermediate Gear

- 1) Remove bottom pan (Section 7.42).
- 2) Remove bolts holding lower handle to left side of frame.



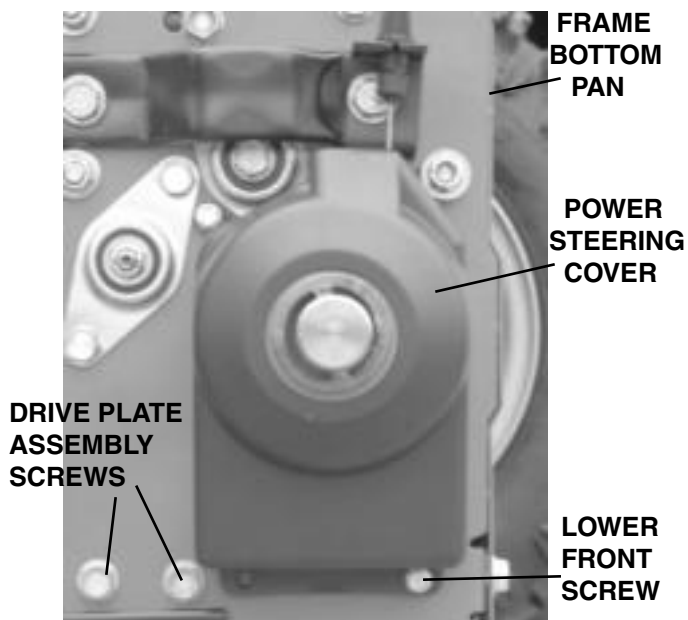
- 3) Remove the 1/2" nut holding the clutch rod to the drive control bellcrank.

- 3) Remove four 1/2" nuts that secure the gear and the Auxiliary Plate.
- 4) Remove bolt through center of gear.
NOTE: Inspect pinion on Hex Shaft, if damaged replace. Lubricate Hex Shaft.
- 5) Replace gear and reassemble reversing the process. Torque nuts at **4-6 Ft.Lbs.** Lubricate center of gear with grease.



7.45 Replace Drive Plate Assembly

- 1) The Drive Belt must be removed from the Engine Pulley. (Section 7.32)



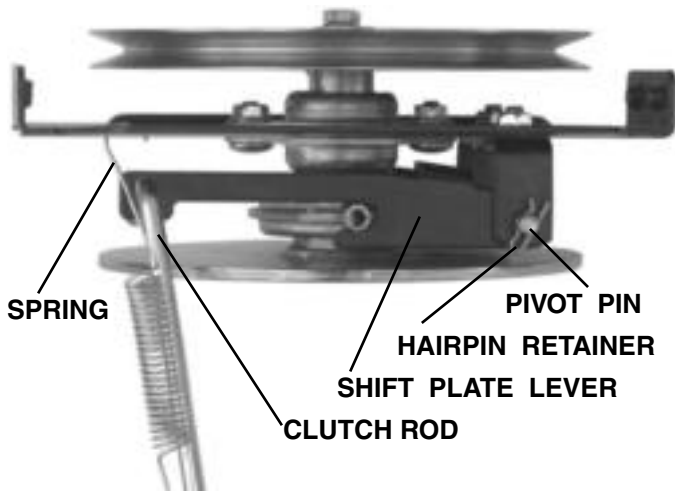
- 2) If equipped with power steering, remove the screw holding the power steering cover at lower front on both sides.

- 4) Remove the 4 screws (2 each side) from the frame that hold the mounting drive plate in place. The zinc plated screws on left side are slightly longer.
- 5) Remove belt from pulley
- 6) Slide Drive Plate Assembly out.

NOTE: Whenever this assembly is removed, it is strongly suggested to lubricate the Hex Shaft with anti-seize compound. See Section 7.46 for instructions.

- 7) Place belt on pulley in correct position, be sure the clutch rod is through the hole in top left end of plate. Reverse the order to reassemble.
- 8) The top left corner of the Drive Plate Assembly will fit into Frame Slot.
- 9) Install 1/2" nut at bellcrank so two threads are showing on clutch rod. See Section 6.22.

7.46 Disassemble Drive Plate / Drive Pulley Assembly (Shaft Lubrication INSTRUCTION)



- 1) Unhook Spring from Clutch Rod (key 11)
- 2) Remove Hairpin Retainer (key 22) from the Shift Plate Lever.
- 3) Remove Pivot Pin and separate Drive Plate (key 26) from hex shaft.

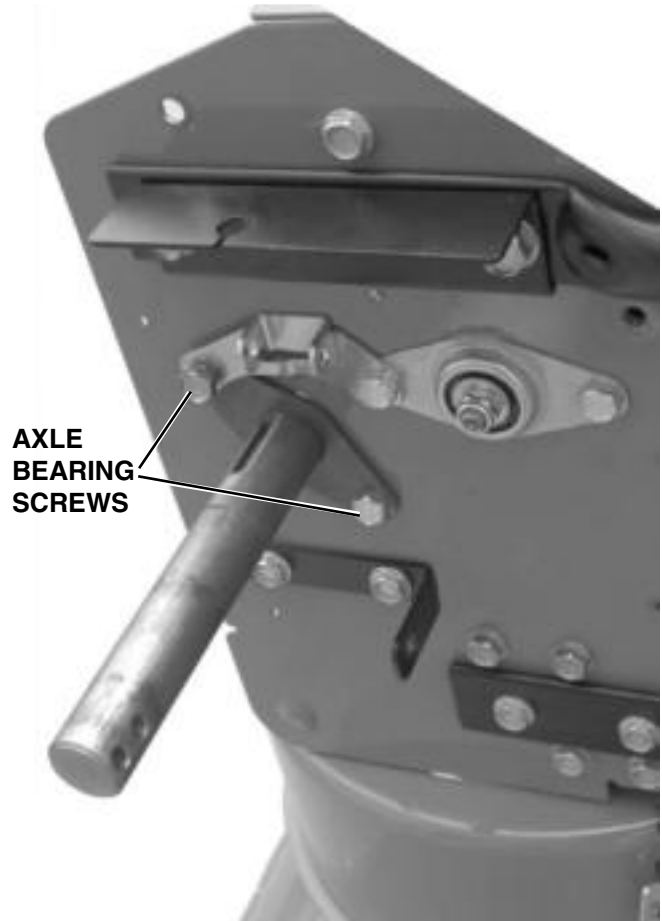


- 4) Inspect parts for wear and replace if necessary.
- 5) Lubricate all sides of Hex Shaft with metallic anti-seize compound.
- 6) Reverse the order to reassemble.

NOTE: Lubrication of the Hex Shaft with metallic antiseize compound is recommended every 120 hours of operation. **If this assembly is removed, we recommend the hex shaft is lubricated with anti-seize compound.**

7.47 Replace Wheel Drive Axle / Gear

- 1) Remove Frame Bottom Pan. Section 7.42.
- 2) Remove covers and disassemble power steering on both sides if so equipped.

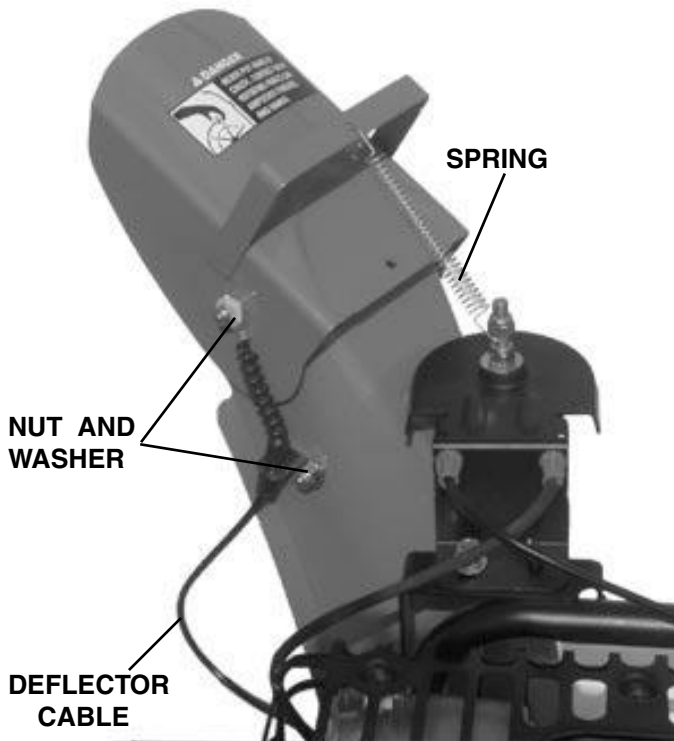


- 3) Remove the screws on the right side that secure axle bushing to the frame.

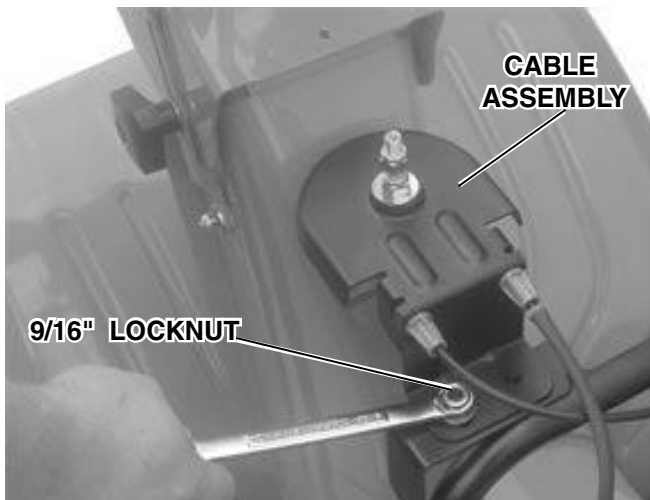


- 4) Slide the axle out the right side and replace damaged parts.
- 5) Reverse process to reassemble. Make sure the square key, roll pin, and thrust washer is located between gear and bearing

7.51 Remove Chute Assembly for servicing other items



- 1) Remove spring that attaches from the deflector to the pivot.
NOTE: If unit is not equipped with a remote deflector proceed to step 4
- 2) Remove the nut and washer that secures the deflector cable to the deflector.
- 3) Remove the nut, washer and bracket that secure the cable to the chute.



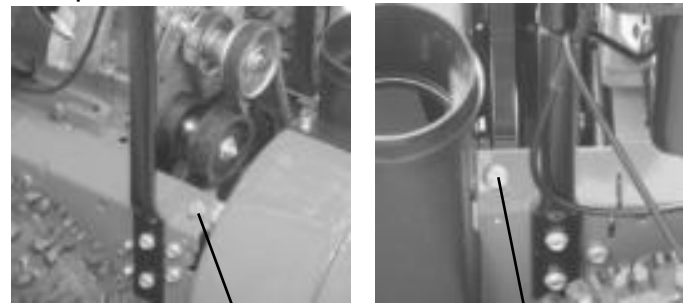
- 4) Remove the 9/16" locknut and separate the cable assembly from the chute assembly.
The chute assembly will separate, be careful not to drop the chute onto the snowthrower.
- 5) Reverse process to reinstall chute deflector.

7.61 Remove Auger Assembly for servicing

- 1) Remove spark plug wire from plug.
- 2) Remove Deflector Chute (Section 7.51 Chute Removal)
- 3) Remove both 3/8" screws that secure belt cover. Remove belt cover.



- 4) Place a chair or saw horse behind handle assembly for support after auger section is split.



- 5) Remove both 9/16" hex bolts that hold the powerhead and auger housing together.

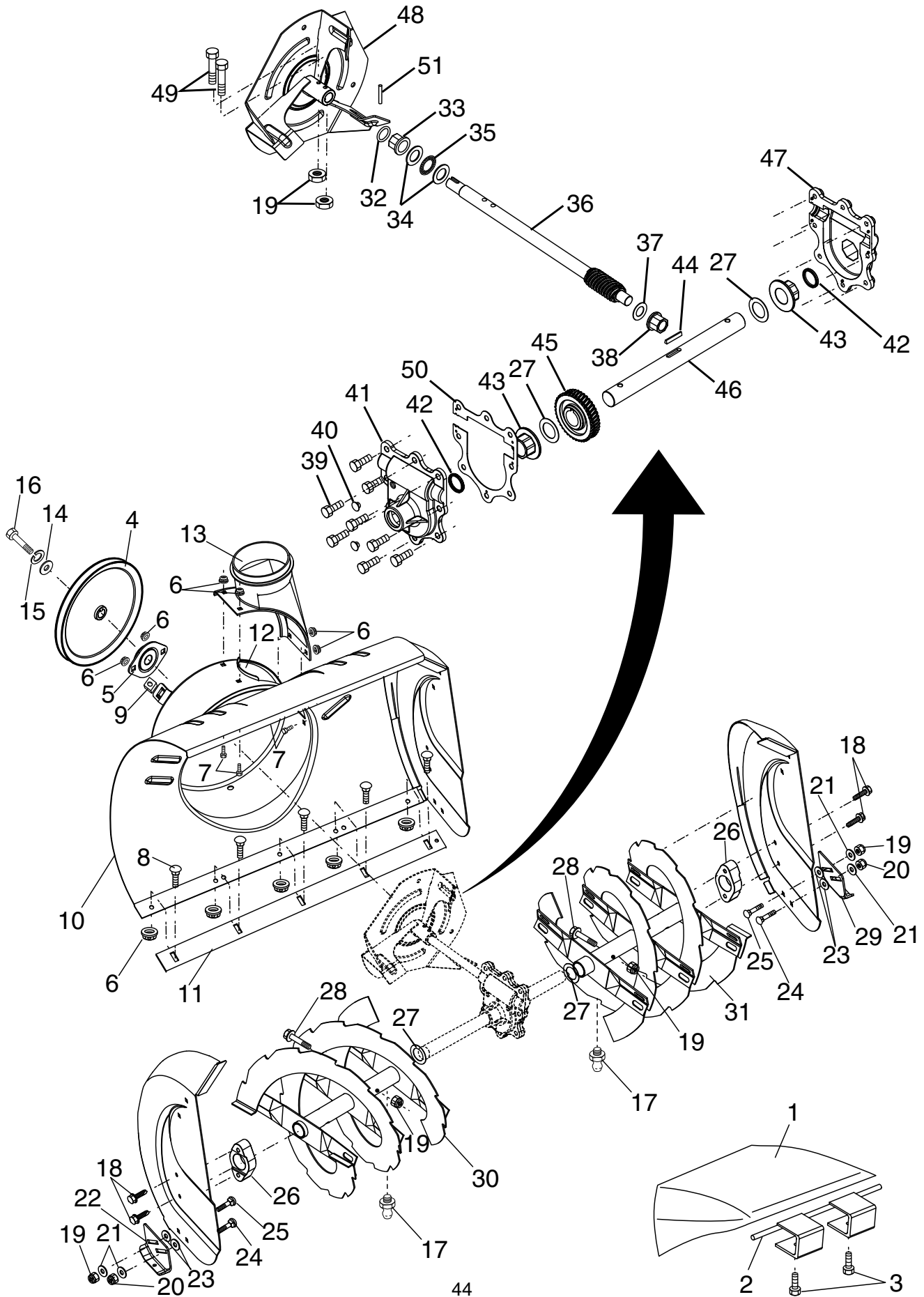


To Reinstall:

- 7) Place belt on auger pulley and use to lift auger assembly into position so that slotted bracket on auger housing are placed onto the rod at base of powerhead.
- 9) Route auger belt around pulleys/guide. Check that belt is not caught on idler brkt.
- 10) Reinstall bolts to secure auger housing to the powerhead and belt cover.
- 11) Reinstall the chute assembly and plug wire.

SNOW THROWER - SECTION 7.62

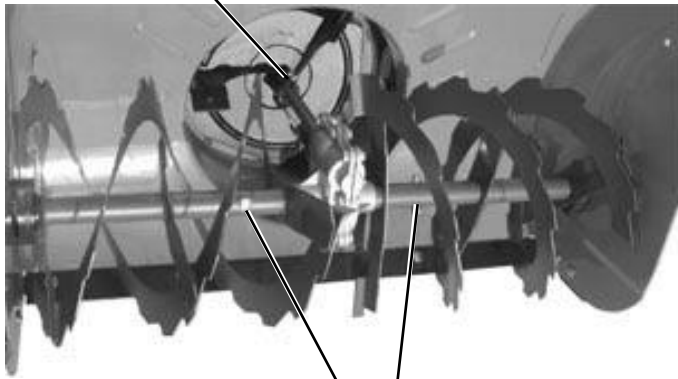
AUGER HOUSING / IMPELLER ASSEMBLY



7.63 Replace Auger Shear Bolts

7.64 Replace Impeller Shear Bolts

IMPELLER SHEAR BOLTS (49)



AUGER SHEAR BOLTS (28)

CAUTION: Only OEM shear bolts should be used. Use of other hardware may result in severe damage to the auger or the gearbox and result in expensive repairs.

28 179828 Shoulder Bolt, Auger

49 74780426 Screw, Hex Head

7.65 Disassembly of Auger Pulley, Auger, Impeller, and Auger Housing

- 1) Separate Auger Assembly from powerhead of Snowthrower (Section 7.61).



- 2) Remove the 1/2" bolt and washers that hold the auger drive pulley in place using the belt to prevent pulley from turning.



- 3) Remove the auger drive pulley from the impeller shaft. It may be necessary to use a gear puller for this. If so, it may help to put a small socket between the gear puller screw and the shaft.
- 4) Using emery cloth, clean and smooth the surface of the shaft.



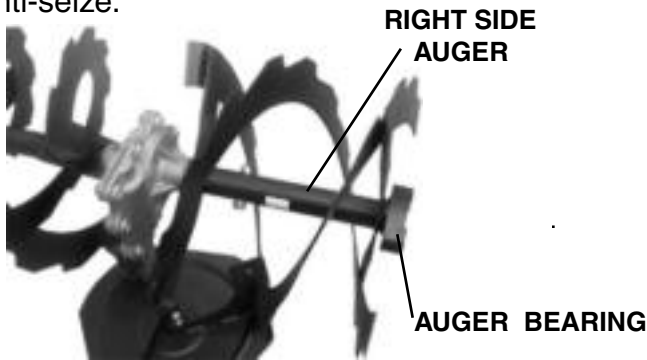
- 5) Remove the right and left side bolts (3/8") that hold the auger bearings in place.



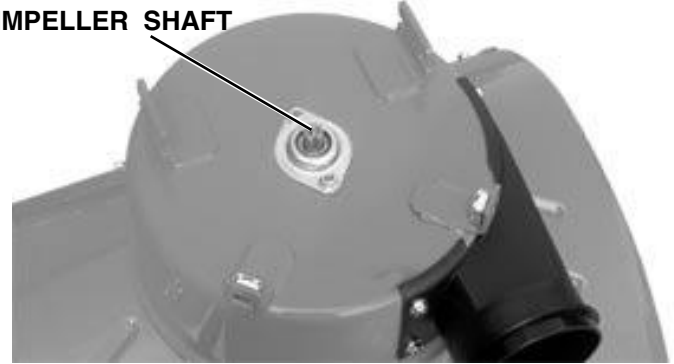
- 6) Holding the Auger pull up to remove the impeller assembly from the auger housing. It may be necessary to use a file to smooth edges of keyway on the shaft so the shaft will slide through the bearing.
- 7) To replace the auger remove shear bolts and pull away from gearbox shaft.
- 8) To replace impeller remove shear bolts and pull away from shaft.

7.66 Reassembly of Auger Assembly

NOTE: Before re-assembling, clean impeller shaft where the auger pulley will be installed using emery cloth, and lubricate shaft end with anti-seize.



- 1) Place auger bearings at ends of auger with center notch in bearing toward housing ends.



- 5) Turn Auger assembly over, put antiseize compound on impeller shaft before installing pulley. Torque at 15-20 Ft.Lbs.
- 6) Reinstall belt and reattach auger assembly to powerhead. (Section 7.61 or 7.31).

7.67 Replace Scraper Bar

NOTE: The Scraper Bar is reversible. Inspect Scraper Bar on snowthrower before ordering a replacement.

**LEFT SIDE AUGER
30" AUGER WIDTH**



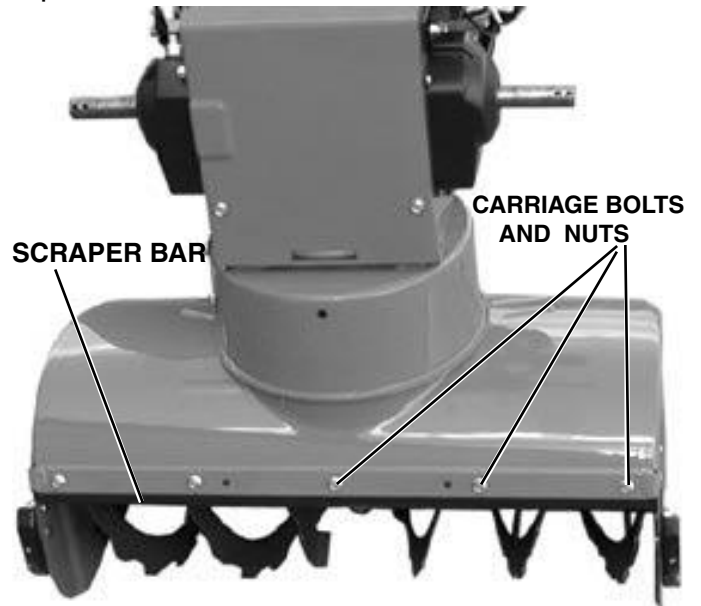
- 2) Check the end of the auger flight. Stamped into the metal is an "L" on the left side or "R" on the right as well as the auger width.



- 3) With auger housing sitting on its back insert gearbox / auger / impeller as an assembly into place.



- 4) Reinstall screws to side of housing to secure the auger bearings.



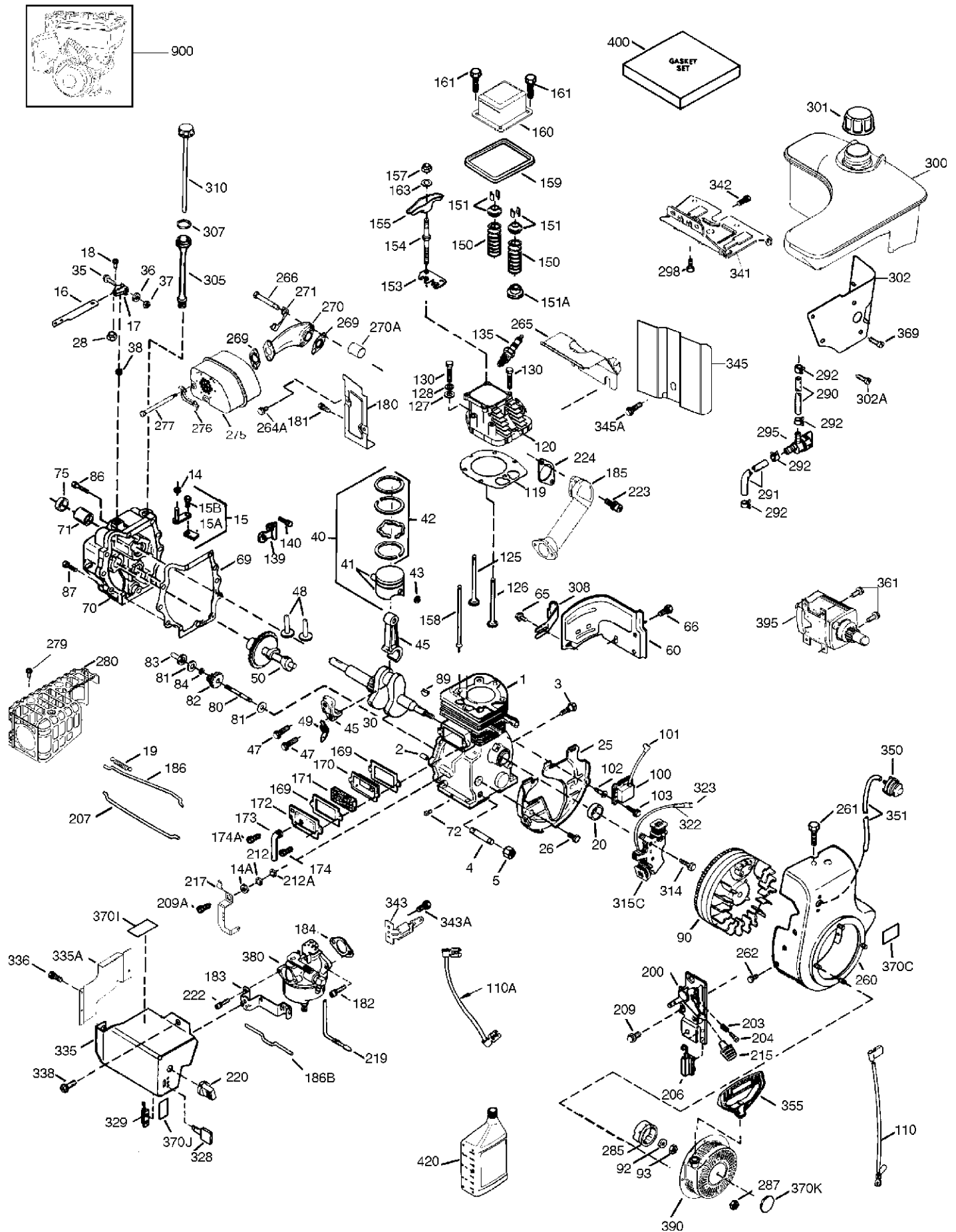
- 1) Tip snowthrower so that Auger is down and handles are up.
- 2) Remove the nuts and carriage bolts holding the scraper to the housing.
- 3) The scraper bar is reversible and can be turned over and reinstalled once before replacement is required.
- 4) Reuse carriage bolts and nuts to install scraper bar.

7.68 Gearbox Repair Information

Replace worn or damaged parts. Replace gasket. Use 750369 grease. Torque self-tapping screw to 15 Ft.Lbs. max.

For Husqvarna Parts Call 606-678-9623 or 606-561-4983

TECUMSEH 4-CYCLE OHV ENGINE



KEY PART NO. NO.	DESCRIPTION	KEY PART NO. NO.	DESCRIPTION
1	Cylinder (Includes Key Numbers 2, 20 and 72)	80	Governor Shaft
2	Dowel Pin	81	Washer
3	Screw 1/4-20 x 1/2"	82	Governor Gear Assembly (Includes Key Number 81)
4	Oil Drain Extension	83	Governor Spool
5	Extension Cap	84	Retaining Ring
14	Washer	86	Screw 1/4-20 x 1-3/16"
14A	Washer	87	Screw 1/4-20 x 1-11/16"
15	Governor Rod Assembly (Includes Key Numbers 15A & 15B)	89	Flywheel Key
15A	Governor Yoke	90	Flywheel (with Ring Gear)
15B	Screw #6-40 x 5/16"	92	Lock Washer
16	Governor Lever (Includes Key Number 212A)	93	Flywheel Nut
17	Governor Lever Clamp	100	Solid State Ignition (Includes Key Number 101)
18	Screw, T-15 #8-32 x 7/16"	101	Spark Plug Cover
19	Extension Spring	102	Solid State Mounting Stud
20	Oil Seal	103	Screw, T-15 #10-24 x 15/16"
25	Blower Housing Baffle	110	Ground Wire
26	Screw 1/4-20 x 19/32"	110A	Ground Wire
28	Lock Nut #10-32	119	* Cylinder Head Gasket
30	Crankshaft	120	Cylinder Head (Includes Key Numbers 151A and 270A)
35	Screw #10-32 x 3/4"	125	Exhaust Valve (Standard)
36	Lock Washer		Exhaust Valve (1/32" Oversize)
37	Lock Nut #10-32	126	Intake Valve (Standard)
38	Retaining Ring	127	Washer
40	Piston, Pin & Ring Set (Standard)	128	Belleville Washer
	Piston, Pin & Ring Set (.010" OS)	130	Screw 5/16-18 x 2-1/2"
41	Piston & Pin Assembly (Standard)	135	Spark Plug (RN4C)
	(Includes Key Number 43)	139	Governor Gear Bracket
	Piston & Pin Assembly (.010" OS)	140	Screw #10-24 x 1/2"
	(Includes Key Numbers 43)	150	Valve Spring
42	Ring Set (Standard)	151	Valve Spring Keeper
	Ring Set (.010" Oversize)	151A	Intake Valve Seal
43	Piston Pin Retaining Ring	153	Push Rod Guide
45	Connecting Rod Assembly (Includes Key Numbers 47 & 49)	154	Rocker Arm Stud
47	Connecting Rod Bolt	155	Rocker Arm
48	Valve Lifter	157	Jam Nut
49	Oil Dipper	158	Push Rod
50	Camshaft (MCR)	159	* Rocker Arm Cover Gasket
60	Blower Housing Extension	160	Rocker Arm Cover
65	Screw #10-24 x 3/16"	161	Screw, T-30 1/4-20 x 1/2"
66	Screw, Torx T-30 1/4-20 x 1/2"	163	Lock Washer
69	Cylinder Cover Gasket	169	* Valve Cover Gasket
70	Cylinder Cover (Includes Key Numbers 71, 75 and 80 thru 84)	170	Breather Body
71	Crankshaft Bushing	171	Breather Element
72	Oil Drain Plug	172	Valve Cover
75	Oil Seal	173	Breather Tube
		174	Screw #10-24 x 1/2"
		174A	Screw #10-24 x 29/32"

For Husqvarna Parts Call 606-678-9623 or 606-561-4983

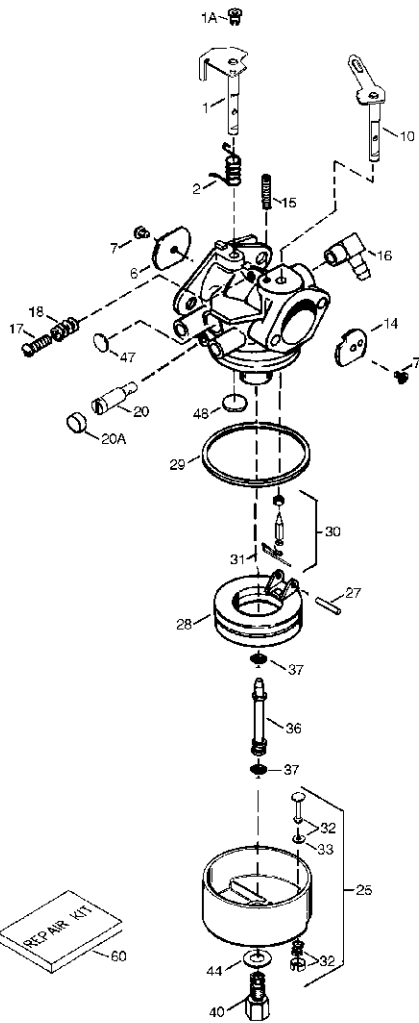
TECUMSEH 4-CYCLE OHV ENGINE

KEY NO.	DESCRIPTION	KEY PART NO.	NO.	DESCRIPTION
180	Blower Housing Extension	305		Oil Fill Tube
181	Screw #10-24 x 9/16"	307		"O" Ring
182	Screw, T-30 1/4-20 x 27/32"	308		Fill Tube Clip
183	Choke Bracket	310		Dipstick
184	* Carburetor To Intake Pipe Gasket	314		Screw 1/4-20 x 3/4"
185	Intake Pipe	315		Alternator Coil, 18 Watt (Includes Key Numbers 322 and 323)
186	Governor Link			Connector Body
186B	Choke Spring	322		Terminal
200	Control Bracket (Includes Key Numbers 203 and 204)	323		Ignition Keys
203	Compression Spring	328		Terminal
204	Screw, T-10 #5-40 x 7/16"	329		Carburetor Cover, Front
206	Terminal	335		Carburetor Cover
207	Throttle Link	335A		Screw, T-30 1/4-20 x 1/2"
209	Screw #10-32 x 1/2"	336		Screw #10-32 x 1/2"
212	Bushing	338		Fuel Tank Bracket
212A	Bushing	341		Screw 5/16-18 x 7/8"
215	Speed Control Knob	342		Key Switch Bracket (Includes Key Number 343A)
217	Bellcrank Lever	343		Screw #10-32 x 23/64"
219	Choke Rod	343A		Heat Baffle
220	Choke Control Knob	345		Screw #10-32 x 1/2"
222	Screw #10-32 x 1/2"	345A		Primer Assembly
223	Screw, T-30 5/16-18 x 7/8"	350		Primer Line
224	* Intake Pipe Gasket	351		Starter Handle
260	Blower Housing	355		Screw, T-30 1/4-20 x 15/32"
261	Screw 1/4-20 x 5/8"	361		Screw #12-16 x 5/8"
262	Screw #5/16-18 x 9/16"	369		Primer Decal
265	Cylinder Head Cover	370C		Warning Decal
266	Screw 5/16-18 x 1-9/32"	370I		Throttle Decal
269	* Exhaust Gasket	370J		Starter Decal
270	Exhaust Manifold	370K		Carburetor (Includes Key Number 184)
270A	Exhaust Port Liner	380		Rewind Starter
271	Locking Plate			Electric Starter Motor (120 Volt)
275	Muffler	390		Gasket Set (Includes All Items Marked *)
276	Locking Plate	395		SAE 5W30 4-Cycle Engine Oil (1 Quart Bottle)
277	Screw 5/16-18 x 4-1/2"	400		Replacement Engine - NONE
279	Screw #10-32 x 5/16"			Replacement S/B (order from 71-999)
280	Heat Shield	420		
285	Starter Cup			
287	Nut & Lock Washer 1/4-28	900	---	
290	Fuel Line			
291	Fuel Line			
292	Fuel Line Clamp			
295	Fuel Shut-Off Valve (Includes Key Number 292)			
298	Screw 1/4-15 x 3/4"			
300	Fuel Tank (Includes Key Numbers 292 and 301)			
301	Fuel Cap			
302	Fuel Tank Extension			
302A	Screw #10-32 x 1/2"			

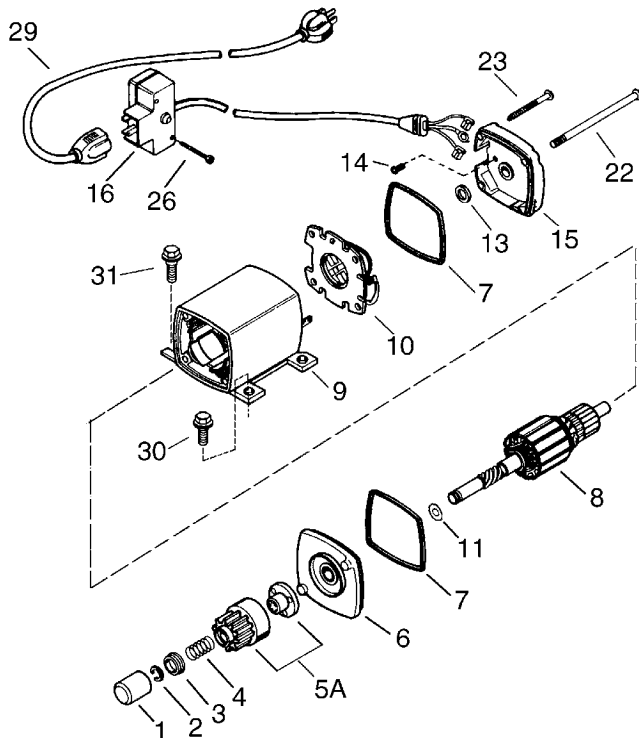
RPMs: Low: 1850 to 2150
High: 3350 to 3650

NOTE: This engine could have been built with Starter #590733.

NOTE: All component dimensions given in U.S. inches.
1 inch = 25.4 mm



KEY PART NO.	NO.	DESCRIPTION
--		Carburetor (Incl. 184 of Engine List)
1		Throttle Shaft & Lever Assembly
1A		Throttle Link Bushing
2		Throttle Return Spring
6		Throttle Shutter
7		* Shutter Screw
10		Choke Shaft & Lever Assembly
14		Choke Shutter
15		Choke Positioning Spring
16		Fuel Fitting
17		Throttle Crack/Idle Speed Screw
18		Tension Spring
20		Idle Restrictor Screw
20A		Idle Restrictor Screw Cap
25		Float Bowl Assembly (Incl. 32 & 33)
27		* Float Shaft
28		Float (Plastic)
29		* Float Bowl "O" Ring
30		* Inlet Needle, Seat & Clip (Incl. 31)
31		Spring Clip
32		Bowl Drain Assembly
33		Drain Plunger Gasket
36		Main Nozzle Tube
37		* "O" Ring, Main Nozzle Tube
40		High Speed Bowl Nut
44		Bowl Nut Washer
47		* Welch Plug, Idle Mixture Well
48		* Welch Plug, Atmospheric Vent
60		Repair Kit (Incl. Items Marked *)



KEY PART NO.	NO.	DESCRIPTION
--		Electric Starter (110 Volt)
1		Dust Cover
2		Retainer Ring
3		Spring Retainer
4		Anti-drift Spring
5A		Gear & Nut (Incl. 2)
6		Drive End Cap Assembly (Incl. 7)
7		"O" Ring
8		Armature
9		Housing Assembly
10		Brush Card Assembly
11		Thrust Washer
13		Thrust Washer
14		Ground Screw
15		Commutator End Cap Assy. (Incl. 7)
16		Switch Box Assembly
22		Case Bolt
23		Ground Screw
26		Screw #6-32 x 2-1/2"
		Screw #12-16 x 5/8"
29		Extension Cord (10' 6")
30		Screw, Torx T-30 1/4-20 x 1/2"
31		Screw 1/4-20 x 1/2"

NOTE: All component dimensions given in U.S. inches
 1 inch = 25.4 mm

SERVICE NOTES

For Husqvarna Parts Call 606-678-9623 or 606-561-4983

Part Number 184962 _ printed for MY 2003

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